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A. HISTORY OF SCIENCE GENERAL REFERENCES AND TOOLS

1. HISTORY OF SCIENCE, GENERAL WORKS *(works covering two or more of the subjects under C and D below; also national histories of science)*

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3. HISTORIOGRAPHY AND HISTORICAL METHOD *(for historiography of particular sciences see under those sciences)*

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4. BIOGRAPHICAL COLLECTIONS

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5. ENCYCLOPEDIAS and general compendia

B. SCIENCE AND ITS HISTORY FROM SPECIAL POINTS OF VIEW

10. PHILOSOPHY OF SCIENCE AND METHODS OF SCIENCE *(for philosophy of particular sciences see under those sciences)*

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144 **Premuda, Loris.** L'Istituto Veneto: Aperture internazionali e legami scientifici europei. Pp. 13-30 in *Le scienze mediche nel Veneto dell'Ottocento*. Venezia: Istituto Veneto di Scienze, Lettere ed Arti, 1990.

145 **Spary, Emma.** Identity problems: On the history of societies. *Stud. Hist. Phil. Sci.*, 1991, 22: 533-538.

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146 **Vanzetti, Carlo.** La Accademia di Agricoltura, Scienze e Lettere di Verona (1768-1989). 348 pp., illus., notes, index. Verona: Grafiche Fiorini, 1990.

12. SCIENTIFIC INSTRUMENTS AND SPECIAL TECHNIQUES *(includes metrology; instruments used in special sciences or at particular periods are listed under those sciences or periods)*

147 **Anderson, R.G.W.; Burnett, J.; Gee, B.** Handlist of scientific instrument-makers' trade catalogues, 1600-1914. (National Museums of Scotland information series, 8.) vii + 100 pp., index. Edinburgh: National Museums of Scotland in association with the Science Museum, 1990.

148 **Banfield, Edwin.** Barometer makers and retailers, 1660-1900. 3 vols., illus., bibl. Trowbridge, Eng.: Baros Books, 1991.

149 **Brenni, Paolo.** Il restauro della collezione di apparecchi di fisica del Liceo Visconti di Roma. *Nuncius*, 1992, 7(1): 219-222.

150 **Bryden, D.J.** Evidence from advertising for mathematical instrument making in London, 1556-1714. *Ann. Sci.*, 1992, 49: 301-336.

"The paper examines the structure of the mathematical instrument making trade in London from the mid-16th century to the opening of the Hanoverian era. This analysis of the trade is primarily based on evidence drawn from contemporary advertising." From the summary.

151 **Bud, Robert; Cozzens, Susan E. (eds.)** Invisible connections: Instruments, institutions, and science. (SPIE Institutes for Advanced Optical Technology series, 9.) xiv + 306 pp., illus., notes. Bellingham, Wash.: SPIE Optical Engineering Press, 1992.

Contents: EVERETT MENDELSOHN: The social locus of scientific instruments. SIMON SCHAFFER: Late Victorian metrology and its instrumentation: A manufactory of Ohms. YAKOV M. RABKIN: Rediscovering the instrument: Research, industry, and education. C.N.M. JANSZ: Information in instrumentation. STUART BLUME: Whatever happened to the string and sealing wax? CHANDRA MUKERJI: Scientific techniques and learning: Laboratory "signatures" and the practice of oceanography. DAVID EDGE: Mosaic array cameras in infrared astronomy. JOHN KRIGE: Institutional problems surrounding the acquisition of detectors in high-energy physics at CERN in the early 1970s . ISKENDER GÖKALP, LUSIN BAGLA, SUSAN E. COZZENS: Introduction of laser techniques in turbulence and combustion domains: A case study on the impact of instrumentation on science. JAMES FEENEY: Development of high resolution NMR spectroscopy as a structural tool. PETER MORRIS: Present and future applications of NMR to medicine and materials science. JEFFREY K. STINE: Scientific instrumentations as an element of U.S. science policy: National Science Foundation support of chemistry instrumentation. CARLOS KRUYTBOSCH: The NSF surveys of academic research instrumentation and academic research facilities: A study in data collection and analysis and policy formulation. YVES-ANDRÉ ROCHER: Equipment funding at the Centre National de la Recherche Scientifique. LUKE GEORGHIOU, PETER HALFPENNY, JOHN YATES: Models of sophistication or instruments of decline? Quantifying the state of academic research equipment.

152 **Crease, Robert P.** The trajectory of techniques: Lessons from the past. *Science*, 1992, 257: 350-353.

Historical examples of the development of scientific techniques.

153 **Dragoni, Giorgio (ed.)** Instrumenta: Il patrimonio storico scientifico italiano: Una realtà straordinaria. 286 pp., illus., notes. Bologna: Grafis, 1991.

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di Fisica del Museo per la storia dell'Università di Pavia. FABIO BEVILACQUA: Il museo scientifico come laboratorio storico didattico: Il ruolo delle simulazioni con il calcolatore. FRANCA ACERENZA (et al.): Il Dipartimento di Fisica dell'Università di Genova e il patrimonio storico-scientifico: Un progetto in evoluzione. MARCO GALLONI, ANGIOLA MARIA SASSI PERINO: I musei e le raccolte scientifiche negli Atenei torinesi. GIAN ANTONIO SALANDIN: Le collezioni antiche del Dipartimento di Fisica "Galileo Galilei" dell'Università di Padova. ROBERTO MANTOVANI, FLAVIO VETRANO: Una realtà dimenticata: Il gabinetto di Fisica dell'Università di Urbino. SALVO D'AGOSTINO: Teorie sistematiche e strumenti precisi: Per una storia degli strumenti dell'elettromagnetismo. MICHELANGELO DE MARIA, GIOVANNI PAOLONI, GIOVANNI BATTIMELLI: Problemi e prospettive degli archivi per la storia della scienza a Roma. EZIO RAGOZZINO, RAFFAELE RINZIVILLO, EDVIGE SCHETTINO: Il Museo del Dipartimento di Scienze fisiche dell'Università di Napoli. SANTI MANCUSO: Riorganizzazione e schedatura bibliografica presso il Dipartimento di Scienze fisiche dell'Università di Napoli. ELVIRA BARONE (et al.): Restauro e catalogazione del patrimonio scientifico di interesse storico del Dipartimento di Fisica e dell'Osservatorio astrofisico di Catania. GIUSEPPE BAGGIANI, FRANCO ERDAS: Il recupero degli strumenti scientifici e didattici di interesse storico del Gabinetto di Fisica e dell'Istituto di Fisica dell'Università di Cagliari.

154 **Drummeter, Louis F., Jr.** Notes on the blink-comparator. *Rittenhouse*, 1991, 6: 11-19.

The blink-comparator is a device that permits one to view two photographic plates alternatively.

155 **Eklund, Jon.** The Hardy automatic recording spectrophotometer: From apparatus to instrument. *Rittenhouse*, 1992, 6: 73-86.

156 **Lyall, Kenneth.** Electrical and magnetic instruments. (The Whipple Museum of the History of Science, catalogue 8.) Cambridge, Eng.: The Whipple Museum of the History of Science, 1991.

157 **Mackensen, Ludolf von.** Die Naturwissenschaftlich-technische Sammlung: Geschichte, Bedeutung und Ausstellung in der Kasseler Orangerie. (Schriften zur Naturwissenschafts- und Technikgeschichte, 3.) 156 pp., illus., bibl. Kassel: Wenderoth, 1991.

158 **Mills, Allan; Pritchard, John.** A "40 feet" oil barometer. *Bull. Sci. Instr. Soc.*, 1991, 30: 5-9.

Describes a recently constructed barometer using oil as liquid. The paper includes a historical discussion of the use of liquids other than mercury in constructing barometers.

159 **Mirowski, Philip.** Looking for those natural numbers: Dimensionless constants and the idea of natural measurement. *Sci. Context*, 1992, 5: 165-188.

"This paper surveys the history of measurement standards, physical dimensions and dimensionless constants as one instance of the quest to purge all anthropomorphic taint first in the metric system, then in the dimensions provided by the atom, then in physical constants intelligible to extraterrestrials, only then to end up back at overt anthropomorphism in the late 20th century. This suggests that the 'naturalness' of natural numbers has always been conceptualized in locally contingent cultural terms." From the abstract.

160 **Simpson, A.D.C.** Grain packing in early standard capacity measures: Evidence from the Scottish dry capacity standards. *Ann. Sci.*, 1992, 49: 337-350.

"The large grain measures used until at least the end of the 19th century for controlling the sale of dry goods have precise legal definitions in terms of smaller units of weight or capacity. They are related by experimental procedures which in the modern period have involved water determinations, but it has been appreciated that for medieval measures the medium was grain. A study of the way grain packs in such vessels has enabled the sizes of early Scottish standards to be recovered for the first time and deductions made about their evolution and use, against a background of early English practice." From the summary.

161 **Turner, Steven.** Spiders in the crosshairs: Cobwebs, instrument makers, and the search for the perfect line. *Rittenhouse*, 1991, 6: 1-10.

162 **Warner, Deborah Jean.** British instrument makers in the U.S. *Rittenhouse*, 1991, 6: 25-31.

13. SCIENTIFIC EDUCATION AND HISTORY OF EDUCATION *(materials relating the history of science to science teaching)*

163 **Clark, William.** On the ironic specimen of the Doctor of Philosophy. *Sci. Context*, 1992, 5: 97-137.

On the history of the academic "Doctor of Philosophy" in Germany.

164 **Elliott, Clark A.; Rossiter, Margaret W. (eds.)** Science at Harvard University: Historical perspectives. 380 pp., illus., notes, index. Bethlehem, Pa.: Lehigh Univ. Press; London: Associated University Presses, 1992.

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165 **Franco, Creso; Colinvaux-de-Dominguez, Dominique.** Genetic epistemology, history of science, and science education. *Sci. and Educ.*, 1992, 1: 255-271.

166 **Lundgreen, Peter.** Akademiker und "Professionen" in Deutschland. *Hist. Z.*, 1992, 254: 657-670.

Essay review of recent work.

167 **Matthews, Michael R. (ed.)** History, philosophy, and science teaching: Selected readings. (Readings in educational controversy.) xii + 244 pp., notes. Toronto: OISE Press; New York: Teachers College Press, 1991.

168 **Matthews, Michael R.** History, philosophy, and science teaching: The present rapprochement. *Sci. and Educ.*, 1992, 1: 11-47.

"This paper traces the use of, and arguments for, the history and philosophy of science in school science courses."

169 **Miroir de la science:** 100 ans de livres à l'Université de Fribourg. Spiegel der Wissenschaft: 100 Jahre Bücher an der Universität Freiburg. xxvi + 264 pp., ports. Fribourg: Éditions Universitaires, 1990.

Exhibit catalog.

170 **Rudd, M. Eugene.** Science on the Great Plains: The history of physics and astronomy at the University of Nebraska-Lincoln. (University of Nebraska studies, new series, 71.) xii + 168 pp., illus., notes, bibl., index. Lincoln: University of Nebraska, 1992.

171 **Semper apertus:** Sechshundert Jahre Ruprecht-Karls Universität Heidelberg, 1386-1986. Festschrift in sechs Bänden. Hrsg. von Wilhelm Doerr [et al.]. 6 vols., illus., notes, index. Berlin: Springer-Verlag, 1985.

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172 **Yates, W. Ross.** Lehigh University: A history of education in engineering, business, and the human condition. 334 pp., illus., bibl., index. Bethelem, Pa.: Lehigh Univ. Press; London: Associated University Presses, 1992.

14. SOCIOLOGY OF SCIENCE: Science and society, science of science *(general works on science and society, organization of science, scientometrics, etc.)*

173 **Appleyard, Bryan.** Understanding the present: Science and the soul of modern man. xiv + 283 pp., notes, index. London: Pan Books, 1992.

174 **Baber, Zaheer.** Sociology of scientific knowledge: Lost in the reflexive funhouse? *Theory Soc.*, 1992, 21: 105-119.

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175 **Bakhurst, David.** Political emancipation and the domination of nature: The rise and fall of Soviet Prometheanism. *Int. Stud. Phil. Sci.*, 1991, 5: 215-226.

Essay review of Loren R. Graham (ed.) *Science and the Soviet social order* (1990), and I.T. Frolov *Man, science, humanism: A new synthesis* (1990).

176 **Bell, Robert.** Impure science: Fraud, compromise and political influences in scientific research. xvi + 301 pp., notes, index. New York: Wiley, 1992.

177 **Böhme, Gernot.** Coping with science. vii + 122 pp., notes, index. Boulder, Colo.: Westview Press, 1992.

178 **Braam, Robert R.** Mapping of science: Foci of intellectual interest in scientific literature. (Science studies series.) 308 pp., notes. Leiden: DSWO Press, Univ. of Leiden, 1991.

179 **Brush, Stephen G.** Women in science and engineering. *Amer. Scient.*, 1991, 79: 404-419.

180 **Bunge, Mario.** A critical examination of the new sociology of science. *Phil. Soc. Sci.*, 1991, 21: 524-560; 1992, 22: 46-76.

181 **Burnham, John C.** How journal editors came to develop and critique peer review procedures. Pp. 55-62 in H.F. Mayland, R.E. Sojka (eds.) *Research ethics, manuscirpt review, and journal quality.* Madison, Wis.: American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, 1992.

182 **Cole, Stephen.** Making science: Between nature and society. xiv + 290 pp., notes, index. Cambridge, Mass.: MIT Press, 1992.

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183 **Curtis, R.C.** Popularising science: Polanyi or Popper? *Minerva*, 1991, 29: 116-130.

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184 **Descarries-Bélanger, Francine; Maheu, Louis.** Ecrits scientifiques et enjeux de l'institutionnalisation de l'activité scientifique au Québec. *Can. J. Sociol.*, 1988, 13: 235-260.

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185 **Fischer, Klaus.** The social and cognitive dynamics of paradigmatic change: A scientometric approach. *Sci. Context*, 1992, 5: 51-96.

"By combining a scientometric and a human information processing approach to the history of scientific thought, structures of disciplinary development, and in particular paradigmatic cycles, can be more reliably assessed than before."

186 **Fuchs, Stephan.** The professional quest for truth: A social theory of science and knowledge. (SUNY series in science, technology, and society.) xviii + 254 pp., illus., notes, index. Albany: State University of New York Press, 1992.

187 **Goodstein, David.** Scientific fraud. *Amer. Sch.*, 1991, 60: 505-515.

188 **Govoni, Paola.** Divulgazione scientifica: Un genere marginale? *Intersezioni*, 1991, 11: 553-564.

189 **Holton, Gerald.** How to think about the "anti-science" phenomenon. *Public Underst. Sci.*, 1992, 1: 103-128.

190 **Im Widerstreit** mit der Objektivität: Frauen in den Naturwissenschaften. Hrsg. vom Verein Feministische Wissenschaft Schweiz und vom FrauenForm Naturwissenschaften. 159 pp., notes. Zürich: eFeF-Verlag, 1991.

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191 **Inventing women:** Science, technology, and gender. Edited by Gill Kirkup and Laurie Smith Keller. vi + 342 pp., illus., bibl., index. Cambridge, Eng.: Polity Press in association with the Open University, 1992.

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192 **Jacobs, Struan.** Science and British liberalism: Locke, Bentham, Mill, and Popper. xii + 242 pp., bibl., index. Aldershot, Eng.: Avebury, 1991.

193 **Kaiser, Walter.** Die Struktur wissenschaftlicher Kontroversen. Pp. 113-148 in Hans Poser, Clemens Burrichter (eds.) *Die geschichtliche Perspektive in den Disziplinen der Wissenschaftsforschung*. Berlin: Technische Universität, 1988.

194 **Kleppinger, Eugene D.** Explanations of science: The use of case studies in the sociology of scientific knowledge. *Diss. Abstr. Int.*, 1992, 53: 522-A.

Dissertation at Univ. of Kentucky, 1991. Director: Dallas M. High. Univ. Microfilms order no. 92-19655. 313 pp.

195 **Kutschmann, Werner.** Der Naturwissenschaftler und sein Körper: Naturwissenschaftsgeschichte aus anthropologischer Perspektive. *Ber. Wissenschaftsgesch.*, 1991, 14: 137-146.

"Since its early days modern science is confronted with the following dilemma: Scientific investigation of nature requires the availability of the scientist's body in nearly all of its activities, though on the other hand science feels obliged to minimalize any influence of this body for methodological reasons. How has science dealt with this dilemma? How has it managed to keep the balance between using the body in favour of knowledge and keeping the required distance to it? In answering these questions the paper tries to reconstruct the history of early modern science from an anthropological perspective."

196 **LaFollette, Marcel C.** Stealing into print: Fraud, plagiarism, and misconduct in scientific publishing. viii + 293 pp., notes, bibl., index. Berkeley: Univ of California Press, 1992.

197 **Latour, Bruno; Mauguin, Philippe; Teil, Geneviève.** A note on socio-technical graphs. *Soc. Stud. Sci.*, 1992, 22: 33-57.

Reports on an attempt to create a new research tool, "socio-technical analysis", with which to map the development of a scientific controversy or technical innovation. Followed by a case study using this method, "Exploring socio-technical analysis: Monsieur Latour is not joking!", by James K. Scott (pp. 59-80).

198 **Lewontin, R.C.** Facts and the factitious in natural sciences. *Crit. Inq.*, 1991, 18: 140-153.

"What the examples of the genetics of IQ and of sociobiology teach us is not that ideology influences scientific theories, an idea that is obvious to any historian or social theorist (although denied by many scientists). Rather, they warn us that the quality of evidence itself is tailored to fit ideological demands. In this, as in everything else, natural science as a way of understanding the natural world differs rather less from other systems of knowledge than its practitioners would have one believe."

199 **Locke, Simon.** "Depth hermeneutics": Some problems in application to the public understanding of science. *Sociology*, 1991, 25: 375-394.

Followed by a reply by John B. Thompson (pp. 395-401).

200 **Mason, Joan.** Women in science: Breaking out of the circle. *Notes Rec. Roy. Soc. Lond.*, 1992, 46: 177-182.

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201 **McMullin, Ernan (ed.)** The social dimensions of science. (Studies in science and the humanities from the Reilly Center for Science, Technology, and Values, 3.) xvii + 299 pp., notes, index. Notre Dame, Ind.: Univ. of Notre Dame Press, 1992.

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202 **Meade, Teresa; Walker, Mark (eds.)** Science, medicine and cultural imperialism. vii + 207 pp., notes, index. New York: St. Martin's Press, 1991.

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203 **Mellican, R. Eugene.** From fusion frenzy to fraud: Reflections on science and its cultural norms. *Bull. Sci. Technol. Soc.*, 1992, 12: 1-9.

204 **Midgley, Mary.** Science as salvation: A modern myth and its meaning. x + 239 pp., notes, index. London: Routledge, 1992.

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23a. Geology and geophysics

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23f. Meteorology

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26. MEDICINE AND THE MEDICAL SCIENCES

26a. Medical history *(histories of diseases, medical anatomy, hospitals, veterinary medicine, and dentistry)*

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31. ANCIENT NEAR EAST

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31d. Pseudo-science *(natural magic, alchemy, astrology)*

31e. Technology, travel, exploration, and geography

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31f. Medicine and health

777 **Adamson, P.B.** Surgery in ancient Mesopotamia. *Med. Hist.*, 1991, 35: 428-435.

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32. CLASSICAL ANTIQUITY AND THE ANCIENT WORLD IN GENERAL *(chiefly Greco-Roman to c. A.D. 500)*

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992 **McDonough, Richard.** Plato's not to blame for cognitive science. *Ancient Phil.*, 1991, 11: 301-314.

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33.1. MIDDLE AGES *(Latin culture and Europe in general from c. A.D. 500 to c. 1450)*

33.1a. General history; Philosophy

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1173 **Lull, Ramón.** Principes de médecine. Traduction, introduction et notes par Armand Llinares. 240 pp., notes, bibl. Paris: Klincksieck, 1992.

1174 **Martin, Jürgen.** Die "Ulmer Wundarznei": Einleitung, Text, Glossar zu einem Denkmal deutscher Fachprosa des 15. Jahrhunderts. (Würzburger medizinhistorische Forschungen, 52.) 273 pp., illus., notes, bibl. Würzburg: Königshausen & Neumann, 1991.

1175 **Möhler, Rainer.** "Epistula de vulture": Untersuchungen zu einer organotherapeutischen Drogenmonographie des Frühmittelalters. (Würzburger medizinhistorische Forschungen, 45. Mittelalterliche Wunderdrogentraktate, 4.) xxxix + 414 pp., illus. Pattensen: Wellm, 1990.

1176 **Nada Patrone, Anna Maria.** Alimentazione e malattie nel Medioevo. Pp. 29-49 in Nicola Tranfaglia, Massimo Firpo (eds.) *La storia: I grandi problemi dal Medioevo all'Età Contemporanea.* Vol. 1. Torino: UTET, 1988.

1177 **Newmyer, Stephen T.** Asaph's "Book of remedies": Greek science and Jewish apologetics. *Sudhoffs Arch.*, 1992, 76: 28-36.

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1178 **Opsomer, Carmélia.** L'art de vivre en santé: Images et recettes du moyen âge: Le *Tacuinum sanitatis* (manuscrit 1041) de la Bibliothèque de l'Université de Liège. 207 pp., illus., bibl. Alleur, Belgium: Editions Du Perron, 1991.

1179 **Orofino, Giulia.** L'iconografia del *Regimen Sanitatis* in un manoscritto angioino (Napoli, Bibl. Naz., XIII C 37). *Stud. Medievali*, 1990, 31: 775-787.

1180 **Riddle, John M.** Oral contraceptives and early-term abortifacients during classical antiquity and the Middle Ages. *Past Present*, 1991, 132: 3-32.

1181 **Riddle, John M.; Estes, J. Worth.** Oral contraceptives in ancient and medieval times. *Amer. Scient.*, 1992, 80: 226-233.

1182 **Schnell, Bernhard.** Arzt und Literat: Zum Anteil der Ärzte am spätmittelalterlichen Literaturbetrieb. *Sudhoffs Arch.*, 1991, 75: 44-57.

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1184 **Thomasset, Claude.** Médecine et sexualité: Force et faiblesse de l'explication scientifique médiévale. Pp. 173-187 in Bernard Ribémont (ed.) *Le Moyen Age et la science.* Paris: Klincksieck, 1991.

1185 **Weiss-Amer, Melitta.** Food and drink in medical-dietetic *Fachliteratur* from 1055 to 1400. *Diss. Abstr. Int.*, 1992, 52: 3921-A.

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1187 **Zimmermann, Albert.** Natur und Tod gemäss Thomas von Aquin. Pp. 767-778 in Albert Zimmermann, Andreas Speer (eds.) *Mensch und Natur im Mittelalter.* Berlin: de Gruyter, 1991.

33.1g. Social sciences *(anthropology, psychology, etc.)*

1188 **Allen, Prudence.** Hildegard of Bingen's philosophy of sex identity. *Thought*, 1989, 64: 231-241.

1189 **Barad, Judith.** Aquinas on the role of emotion in moral judgment and activity. *Thomist*, 1991, 55: 397-413.

1190 **Boiadjiev, Tzotcho.** Der menschliche Körper und seine Lebenskräfte in der Ideenwelt des Mittelalters: Ein Versuch über die mittelalterliche Erotik. Pp. 795-814 in Albert Zimmermann, Andreas Speer (eds.) *Mensch und Natur im Mittelalter.* Berlin: de Gruyter, 1991.

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1192 **Brown, Montague.** St. Thomas Aquinas and the individuation of persons. *Amer. Cath. Phil. Quart.*, 1991, 65: 29-44.

1193 **Buridan, Jean.** Le traité de l'âme de Jean Buridan. (De prima lectura). [Édition, étude critique et doctrinale par] Benoît Patar. (Philosophes médiévaux, 29.) 199 + 891 pp., notes, index. Louvain-La-Neuve, Belgique: Institut Supérieur de Philosophie; Longueuil, Québec: Éditions du Préambule, 1991.

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1198 **Goodich, Michael.** Jüdische und christliche Traumanalyse im zwölften Jahrhundert. *Psychol. Gesch.*, 1991, 3(1-2): 77-82.

1199 **Heaney, Stephen J.** Aquinas and the presence of the human rational soul in the early embryo. *Thomist*, 1992, 56: 19-48.

1200 **Jenkins, John.** Aquinas on the veracity of the intellect. *J. Phil.*, 1991, 88: 623-632.

1201 **Jordan, Mark D.** The dissappearance of Galen in 13th-century philosophy and theology. Pp. 703-717 in Albert Zimmermann, Andreas Speer (eds.) *Mensch und Natur im Mittelalter.* Berlin: de Gruyter, 1991.

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1202 **Kapriev, Georgi.** Der Mensch als kosmisches Atom in der mittelalterlichen Historiographie (9.-11. Jahrhundert). Pp. 28-40 in Albert Zimmermann, Andreas Speer (eds.) *Mensch und Natur im Mittelalter.* Berlin: de Gruyter, 1991.

1203 **Köhler, Theodor Wolfram.** Anthropologische Erkennungsmerkmale menschlichen Seins: Die Frage der "pygmei" in der Hochscholastik. Pp. 718-735 in Albert Zimmermann, Andreas Speer (eds.) *Mensch und Natur im Mittelalter.* Berlin: de Gruyter, 1991.

1204 **Kölmel, Wilhelm.** *Natura: genitrix rerum–regula mundi*: Weltinteresse und Gesellschaftsprozess im 12. Jahrhundert. Pp. 43-56 in Albert Zimmermann, Andreas Speer (eds.) *Mensch und Natur im Mittelalter.* Berlin: de Gruyter, 1991.

1205 **Mahoney, Edward P.** Nicoletto Vernia's annotations on John of Jandun's *De anima.* Pp. 573-593 in Burkhard Mojsisch, Olaf Pluta (eds.) *Historia philosophiae Medii Aevi: Studien zur Geschichte der Philosophie des Mittelalters.* Amsterdam: Grüner, 1991.

1206 **McLean, I.** The Borda and Condorcet principles: Three medieval applications. *Soc. Choice Welf.*, 1990, 7(2): 99-108.

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1207 **Pluta, Olaf.** *Homo sequens rationem naturalem*: Die Entwicklung einer eigenständigen Anthropologie in der Philosophie des späten Mittelalters. Pp. 752-763 in Albert Zimmermann, Andreas Speer (eds.) *Mensch und Natur im Mittelalter.* Berlin: de Gruyter, 1991.

1208 **Roberts, Robert C.** Thomas Aquinas on the morality of emotions. *Hist. Phil. Quart.*, 1992, 9: 287-305.

1209 **Schulze, Markus.** Leibhaft und Unsterblich: Zur Schau der Seele in der Anthropologie und Theologie des Hl. Thomas von Aquin. (Studia Friburgensia, 76.) 186 pp., notes, bibl. Freiburg: Universitätsverlag Freiburg Schweiz, 1992.

1210 **Strohmaier, Gotthard.** Ibn Sīnā's psychology and Dante's *Divine Comedy*. *J. Hist. Arabic Sci.*, 1991, 9: 107-111.

1211 **Vernier, Jean-Marie.** La définition de l'âme chez Avicenne et S. Albert le Grand: Étude comparative du *Liber de anima* d'Avicenne et du *De anima* de S. Albert le Grand. *Rev. Sci. Phil. Théol.*, 1992, 76: 255-279.

1212 **Wéber, Edouard-Henri.** La personne humaine au XIIIe siècle: L'avènement chez les maîtres parisiens de l'acception moderne de l'homme. (Bibliothèque thomiste, 46.) 546 pp., notes, bibl., index. Paris: Vrin, 1991.

33.2. MIDDLE AGES: BYZANTIUM *(includes Greek culture and northwest Asia in general; chiefly from c. A.D. 500 to c. 1450)*

1213 **Géométries** du fisc byzantin. Édition, traduction, commentaire par J. Lefort, R. Bondoux, J.-Cl. Cheynet, J.-P. Grélois, V. Kravari, avec la collaboration de J.-M. Martin. (Réalités byzantines, 4.) 255 pp., plates, notes, index. Paris: Lethielleux, 1991.

1214 **Leurquin, Régine.** Un manuscrit autographe de la *Tribilos astronomique* de Théodore Méliténiote: Le *Vaticanus Graecus* 792. *Scriptorium*, 1991, 45: 145-162.

1215 **Meliteniotes, Theodoros.** Tribiblos astronomique. [Edité et traduit] par Régine Leurquin. Livre 1. (Corpus des astronomes byzantins, 4.) Amsterdam: Gieben, 1990-.
Greek and French texts on facing pages.

1216 **Psellos, Michael.** Michaelis Pselli Commentarii in Physicen Aristotelis. Übersetzt von Johannes Baptista Camotius. Neudruck der 1. Ausgabe Venedig 1554. Mit einer Einleitung von Charles Lohr. (Commentaria in Aristotelem Graeca, Band 1.) xv pp., 81 leaves. Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1990.

34. ISLAMIC AND RELATED CULTURES *(includes Israel, Iran and the Near East in general; chiefly from c. A.D. 500 to c. 1600)*

34a. General history; Philosophy

1217 **Berkey, Jonathan.** The transmission of knowledge in medieval Cairo: A social history of Islamic education. (Princeton studies on the Near East.) xi + 238 pp., notes, bibl., index. Princeton, N.J.: Princeton Univ. Press, 1992.

1218 **Butt, Nasim.** Science in Muslim societies. vii + 136 pp., bibl., notes, index. London: Grey Seal, 1991.

1219 **Daiber, Hans.** Qostā ibn Lūqā (9. Jh.) über die Einteilung der Wissenschaften. *Z. Gesch. Arab.-Islam. Wiss.*, 1990, 6: 93-129.

1220 **Hugonnard-Roche, Henri.** L'intermédiaire syriaque dans la transmission de la philosophie grecque à l'arabe: Le cas de l'*Organon* d'Aristote. *Arab. Sci. Phil.*, 1991, 1: 187-209.
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1221 **Janssens, Jules L.** An annotated bibliography of Ibn Sīnā (1970-1989), including Arabic and Persian publications and Turkish and Russian references. (Ancient and medieval philosophy, series 1, v. 13.) xxvii + 358 pp. Leuven: Leuven Univ. Press, 1991.

1222 **Lévy, Tony.** Science et tradition dans le monde médiéval: Hasdaï Crescas (1340-1412), critique d'Aristote. Pp. 133-151 in Bernard Ribémont (ed.) *Le Moyen Age et la science.* Paris: Klincksieck, 1991.

1223 **Sā'id al-Andalusī.** Science in the medieval world: "Book of the categories of notions". Translated and edited by Sema'an I. Salem and Alok Kumar. xxvi + 118 pp., notes, bibl., index. Austin: Univ. of Texas Press, 1991.

1224 **Saud, Muhammad.** The scientific method of Ibn al-Haytham. 76 pp., illus., notes, index. Islamabad, Pakistan: Islamic Research Institute, International Islamic University, 1990.
Originally presented as the author's PhD thesis, Univ. of Karachi, 1979.

34b. The exact sciences *(pure mathematics, optics, astronomy, music, theoretical mechanics, etc.)*

1225 **Albertini, Tamara.** La quadrature du cercle d'Ibn al-Haytham: Solution philosophique ou mathématique? *J. Hist. Arabic Sci.*, 1991, 9: 5-21.

1226 **Allard, André.** The Arabic origins and development of Latin algorisms in the 12th century. *Arab. Sci. Phil.*, 1991, 1: 233-283.
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1227 **Allard, André.** La diffusion en Occident des premières oeuvres latines: Issues de l'arithmétique perdue d'Al-Khwārizmī. *J. Hist. Arabic Sci.*, 1991, 9: 101-105.

1228 **Bazin, Louis.** Les systèmes chronologiques dans le monde turc ancien. (Bibliotheca orientalis hungarica, 34.) 571 pp., bibl., index. Paris: Centre National de la Recherche Scientifique; Budapest: Akadémiai Kiadó, 1991.

1229 **Bellosta, Hélène.** Ibrāhīm ibn Sinān: On analysis and synthesis. *Arab. Sci. Phil.*, 1991, 1: 211-232.
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1230 **Berggren, J.L.** Greek and Islamic elements in Arabic mathematics. *Apeiron*, 1991, 24(4): 195-217.

1231 **Berggren, J.L.** Medieval Islamic methods for drawing azimuth circles on the astrolabe. *Centaurus*, 1991, 34: 309-344.

1232 **Bruins, Evert M.** Ptolemaic and Islamic trigonometry: The problem of the qibla. *J. Hist. Arabic Sci.*, 1991, 9: 45-68.

1233 **De Young, Gregg.** Isḥāq ibn Ḥunayn, Ḥunayn ibn Isḥāq, and the third Arabic translation of Euclid's *Elements*. *Hist. Math.*, 1992, 19: 188-199.

1234 **Dhanani, Alnoor.** Kalām and Hellenistic cosmology: Minimal parts in Basrian Mu'tazilī atomism. *Diss. Abstr. Int.*, 1992, 52: 4047-A.

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1235 **Djebbar, Ahmed.** Mathématique et linguistique dans le Moyen Age arabe: L'exemple de l'analyse combinatoire au Maghreb. Pp. 15-29 in Bernard Ribémont (ed.) *Le Moyen Age et la science.* Paris: Klincksieck, 1991.

1236 **Hogendijk, Jan P.** The geometrical parts of the *Istikmāl* of Yūsuf al-Mu'taman Ibn Hūd (11th century): An analytical table of contents. *Arch. Int. Hist. Sci.*, 1991, 41: 207-281.

1237 **Hogendijk, Jan P.** A medieval Arabic treatise on mensuration by Qāḍī Abū Bakr. *Z. Gesch. Arab.-Islam. Wiss.*, 1990, 6: 130-150.

1238 **Kheirandish, Elaheh.** The medieval Arabic tradition of Euclid's "Optika". [With Arabic text]. *Diss. Abstr. Int.*, 1991, 52: 1872-A.

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1239 **Kunitzsch, Paul.** al-Ṣūfī and the astrolabe stars. *Z. Gesch. Arab.-Islam. Wiss.*, 1990, 6: 151-166.

1240 **Kunitzsch, Paul.** Von Alexandria über Bagdad nach Toledo: Ein Kapitel aus der Geschichte der Astronomie. (Sitzungsberichte, Bayerische Akademie der Wissenschaften, phil.-hist. Klasse, 1991, 1.) 18 pp., notes. München: Bayerische Akademie der Wissenschaften, 1991.

1241 **Lévy, Tony.** Gersonide, le Pseudo-Ṭūsī, et le postulat des parallèles: Les mathématiques en hébreu et leurs sources arabes. *Arab. Sci. Phil.*, 1992, 2: 39-82.

1242 **Neugebauer, Otto.** Abu Shaker's "Chronography": A treatise of the 13th century on chronological, calendrical, and astronomical matters, written by a Christian Arab, preserved in Ethiopic. A summary. (Sitzungsberichte, Österreichische Akademie der Wissenschaften, phil.-hist. Klasse, 498.) 198 pp., illus., notes, index. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 1988.

1243 **Rada, W.S.; Stephenson, F.R.** A catalogue of meteor showers in medieval Arab chronicles. *Quart. J. Roy. Astron. Soc.*, 1992, 33: 5-16.

"The principal aim of this paper is to present for the first time, we believe, a detailed catalogue of medieval Arabic observations of meteor showers . . . These records were extracted as the result of an extensive literature search through a vast number of printed Arabic chronicles . . ."

1244 **Rashed, Roshdi.** L'analyse et la synthèse selon Ibn al-Haytham. Pp. 131-162 in Roshdi Rashed (ed.) *Mathématiques et philosophie de l'antiquité à l'âge classique.* Paris: Centre National de la Recherche Scientifique, 1991.

1245 **Rashed, Roshdi.** Archimède dans les mathématiques arabes. *Apeiron*, 1991, 24(4): 173-193.

1246 **Said, S.S.; Stephenson, F.R.** Accuracy of eclipse observations recorded in medieval Arabic chronicles. *J. Hist. Astron.*, 1991, 22: 297-310.

1247 **Saliba, George.** A 16th-century drawing of an astrolabe made by Khafīf Ghulām 'Alī b. 'Īsā (c. 850 A.D.). *Nuncius*, 1991, 6(2): 109-119.

1248 **Saliba, George; Kennedy, E.S.** The spherical case of the Ṭūsī Couple. *Arab. Sci. Phil.*, 1991, 1: 285-291.

"In this article we study the development of the mathematical theorem, now known as the Ṭūsī Couple, and discuss the difference between its plane and spherical applications."

1249 **Shamsi, F.A.** Al-Farabi's treatise on certain obscurities in books I and V of Euclid's *Elements. J. Hist. Arabic Sci.*, 1984 (pub. 1988), 8: 31-59.

1250 **Smith, A. Mark.** The Latin version of Ibn Mu'ādh's treatise "On twilight and the rising of clouds". *Arab. Sci. Phil.*, 1992, 2: 83-132.

Includes a text of this treatise, which "represents a unique attempt to determine the height of the atmosphere on the basis of the first tinging of its upper reaches by dawn light."

1251 **Suter, Heinrich.** Beiträge zur Geschichte der Mathematik und Astronomie im Islam. Nachdruck seiner Schriften aus den Jahren 1892-1922. Hrsg. von Fuat Sezgin. (Veröffentlichungen des Instituts für Geschichte der Arabisch-Islamischen Wissenschaften, Reihe B: Nachdrucke, Abteilung Mathematik, 1.) 2 vols, illus., notes, index. Frankfurt am Main: Institut für Geschichte der Arabisch-Islamischen Wissenschaften an der Johann Wolfgang Goethe-Universitat, 1986.

1252 **Toll, Christopher.** A Persian astrolabe from A.H. 1187/A.D. 1773-74. *Orient. Suecana*, 1989-90, 38-39: 163-170.

1253 **Varisco, Daniel Martin.** The origin of the *anwā'* in Arab tradition: On the distinction between science and folklore. *J. Hist. Arabic Sci.*, 1991, 9: 69-100.

On the evidence for and against identification of the *anwā'* (the stars associated with periods of rain) as equivalent to the *manāzil al-qamar* or lunar zodiac.

34c. Natural history *(zoology, botany, mineralogy, meteorology, geology, etc.)*

1254 **Ibn al-Baiṭār.** Die Dioskurides-Erklärung des Ibn al-Baiṭār: Ein Beitrag zur arabischen Pflanzensymbolik des Mittelalters. Arabischer Text nebst kommentierter deutscher Übersetzung hrsg. von Albert Dietrich. (Abhandlungen der Akademie der Wissenschaften in Göttingen, phil.-hist. Klasse, 3 Folge, Nr. 191.) 285 pp. + Arabic text, notes, index. Göttingen: Vandenhoeck & Ruprecht, 1991.

34d. Pseudo-science *(natural magic, alchemy, astrology)*

1255 **Clam, Jean.** Philosophisches zu "Picatrix": Gelehrte Magie und Anthropologie bei einem arabischen Hermetiker des Mittelalters. Pp. 481-509 in Albert Zimmermann, Andreas Speer (eds.) *Mensch und Natur im Mittelalter.* Berlin: de Gruyter, 1991.

1256 **Kennedy, E.S.** Two topics from an astrological manuscript: Sindhind days and planetary latitudes. *Z. Gesch. Arab.-Islam. Wiss.*, 1990, 6: 167-178.

1257 **Nader, Albert N.** Les alchimistes arabes du Moyen Age et leur conception de la nature. Pp. 510-534 in Albert Zimmermann, Andreas Speer (eds.) *Mensch und Natur im Mittelalter.* Berlin: de Gruyter, 1991.

1258 **Saeed, Aftab.** Study of Muslim alchemy in the medieval ages and some valuable chemicals transmitted to modern chemistry. *Indian J. Hist. Sci.*, 1992, 27: 261-278.

34e. Technology, travel, exploration, and geography

1259 **Hill, Donald.** Arabic mechanical engineering: Survey of the historical sources. *Arab. Sci. Phil.*, 1991, 1: 167-186.
"The first and more important section of this article lists all the known treatises in Arabic on fine technology–water-clocks, automata, pumps, trick vessels, fountains, etc . . . For each treatise information is given on the provenance of MSS, editions in Arabic and translations, paraphrases or commentaries in modern European language . . . The second section deals with utilitarian machines such as mills and water-raising machines. The various sources of information about these machines is discussed . . ."

1260 **The history of cartography.** Volume 2, book 1: Cartography in the traditional Islamic and South Asian societies. Edited by J.B. Harley and David Woodward. Associate editors: Joseph E. Schwartzberg, Gerald R. Tibbets. Assistant editor: Ahmet T. Karamustafa. xxiv + 579 pp., illus., notes, bibl., index. Chicago: Univ. of Chicago Press, 1992.
Contents: AHMET T. KARAMUSTAFA: Introduction to Islamic maps. EMILIE SAVAGE-SMITH: Celestial mapping. AHMET T. KARAMUSTAFA: Cosmographical diagrams. GERALD R. TIBBETTS: The beginnings of a cartographic tradition. GERALD R. TIBBETTS: The Balkhī school of geographers. GERALD R. TIBBETTS: Later cartographic developments. S. MAQBUL AHMAD: Cartography of al-Sharīf al-Idrīsī. RAYMOND P. MERCIER: Geodesy. DAVID A. KING, RICHARD P. LORCH: Qibla charts, qibla maps, and related instruments. AHMET T. KARAMUSTAFA: Introduction to Ottoman cartography. AHMET T. KARAMUSTAFA: Military, administrative, and scholarly maps and plans. J.M. ROGERS: Itineraries and town views in Ottoman histories. GERALD R. TIBBETTS: The role of charts in Islamic navigation in the Indian Ocean. SVAT SOUCEK: Islamic charting in the Mediterranean. JOSEPH E. SCHWARTZBERG: Introduction to South Asian cartography. JOSEPH E. SCHWARTZBERG: Cosmographical mapping. JOSEPH E. SCHWARTZBERG: Geographical mapping. JOSEPH E. SCHWARTZBERG: Nautical maps.

1261 **Tolmacheva, M.A.** Ptolemy's East Africa in early medieval Arab geography. *J. Hist. Arabic Sci.*, 1991, 9: 31-43.

34f. Medicine and health

1262 **'Ali Ibn Riḍwān.** Die Abhandlung von Ibn Riḍwān über das Abwenden schädlicher Einflüsse auf den Körper im Klima Ägyptens. (In Arabic). *Z. Gesch. Arab.-Islam. Wiss.*, 1990, 6: arabic section.

1263 **Bos, Gerrit.** A recovered fragment on the signs of death from al-Kindī's "Medical summaries". *Z. Gesch. Arab.-Islam. Wiss.*, 1990, 6: 190-194.

1264 **Ibn Buṭlān.** Das Buch vom gesunden Leben: Die Gesundheitstabellen des Ibn Buṭlān in der illustrierten deutschen Übertragung des Michael Herr, nach der bei Hans Schott erschienenen Ausgabe, Strassburg, 1533. Mit 32 getreuen Farbwiedergaben aus dem Tacuinum sanitatis Codex Vindobonensis 2396. [Hrsg. von] Hans Zotter. 295 pp., illus. Graz, Austria: Akademie Druck- und Verlagsanstaltt, 1988.

1265 **Mohaghegh, Mehdi.** al-Rāzī's *Kitab al-Shukūk' ala Jālīnūs.* (In Arabic). *J. Hist. Arabic Sci.*, 1991, 9: Arabic section.
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1266 **Neubauer, Eckhard.** Arabische Anleitungen zur Musiktherapie. *Z. Gesch. Arab.-Islam. Wiss.*, 1990, 6: 227-272.

1267 **Roux, Jacques.** L'influence de la médecine arabe médiévale sur la médecine moderne. *Pensée (Paris)*, 1991, 280: 39-54.
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1269 **Weisser, Ursula.** Unter den Künsten die nützlichste: Aspekte des ärztlichen Berufs im arabisch-islamischen Mittelalter. *Medizinhist. J.*, 1991, 26: 3-25.

1270 **Witkam, Januarius Justus.** De egyptische arts Ibn al-Akfānī (gest. 749/1348) en zijn indeling van de wetenschappen. Editie van het *Kitāb iršād al-qāṣid ilā asnā al-maqāṣid.* Med een inleiding over het leven en werk van Januarius Justus Wikam. 394 + 70 pp., illus, notes, index. Leiden: Ter Lugt Pers, 1989.

34g. Social sciences *(anthropology, psychology, etc.)*

1271 **Davidson, Herbert A.** Alfarabi, Avicenna, and Averroes, on intellect: Their cosmologies, theories of the active intellect, and theories of human intellect. x + 363 pp., notes, index. New York: Oxford Univ. Press, 1992.

35.1. INDIA *(to c. 1600)*

35.1a. General history; Philosophy

1272 **Bhattacharya, Durgaprasad; Chakravarty, Ranjit; Roy, Rama Deb.** A survey of Bengali writings on science and technology, 1800-1950. *Indian J. Hist. Sci.*, 1989, 24: 8-66.

1273 **Biswas, Sulekha; Biswas, Arun Kumar.** History of science in India: In search of a paradigm. *Indian J. Hist. Sci.*, 1989, 24: 193-200.

1274 **Chattopadhyaya, Debiprasad.** History of science and technology in ancient India, II: Formation of the theoretical fundamentals of natural science. xxi + 593 pp., bibl., index. Calcutta: Firma KLM, 1991.

1275 **History of science** and technology in India. Edited by G. Kuppuram, K. Kumudamani. 12 vols., illus., notes, index. Delhi: Sundeep Prakashan, 1990.

1276 **Interaction** between Indian and central Asian science and technology in medieval times. General editors: W.H. Abdi [et al.]. Volume 1: General ideas and methodology, astronomy, mathematics, and physical concepts. Volume 2: Medicine, technology, arts and crafts, architecture, and music. (Indo-Soviet joint monograph series.) 2 vols., notes, index. New Delhi: Indian National Science Academy, 1990.

1277 **Kulaichev, Alexey Pavlovich; Ramendic, Dina Mikhailovna.** *Śrīyantra*: The ancient instrument to control the psychophysiological state of man. *Indian J. Hist. Sci.*, 1989, 24: 137-149.

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35.1b. The exact sciences *(pure mathematics, optics, astronomy, music, theoretical mechanics, etc.)*

1278 **Bag, A.K.** Ritual geometry in India and its parallelism in other cultural areas. *Indian J. Hist. Sci.*, 1990, 25: 4-19.

1279 **Bharadwaj, Sudhi Kant.** *Sūryasiddhanta*: An astro-linguistic study. xxv + 598 pp., illus., notes, index. Delhi: Parimal, 1991.

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1281 **Datta, Bibhutibhusan; Singh, Awadhesh Narayan.** Use of permutations and combinations in India. *Indian J. Hist. Sci.*, 1992, 27: 231-249.

1282 **Gupta, R.C.** Indian mathematical sciences abroad during pre-modern times. *Indian J. Hist. Sci.*, 1987, 22: 240-246.

1283 **Jain, L.C.; Jain, Km. Meena.** System theory in Jaina school of mathematics. II. *Indian J. Hist. Sci.*, 1989, 24: 163-180.

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1287 **Krishnamurthi, K.R.** Indian astronomers. General editor, N. Mahalingam. 213 pp. Madras: International Society for the Investigation of Ancient Civilizations, 1991.

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1289 **Sharma, Virendra N.** Muslim astronomers at Jai Singh's court. *J. Hist. Arabic Sci.*, 1991, 9: 23-30.

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1292 **Shukla, K.S.** The *Yuga* of the *Yavanajātaka*: David Pingree's text and translation reviewed. *Indian J. Hist. Sci.*, 1989, 24: 211-223.

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35.1c. Natural history *(zoology, botany, mineralogy, meteorology, geology, etc.)*

1293 **Krishnamurthy, Radha.** Gemmology in ancient India. *Indian J. Hist. Sci.*, 1992, 27: 251-260.

1294 **Ramanathan, A.S.** Contribution to weather science in ancient India. III: A conceptual model of the rainfall process (Vedic period). IV: A conceptual model of the rainfall process (post-Vedic period). V: Principles of forecasting rainfall in ancient India (long range). VI: Principles of forecasting rainfall in ancient India (short and medium range). VII: A scientific assessment of the rules of rainfall forecasting practised in ancient India. VIII: Observation and measurement of meteorological parameters in ancient India. *Indian J. Hist. Sci.*, 1987, 22: 1-6, 7-14, 175-190, 191-197, 198-204, 277-285.

1295 **Sikdar, J.C.** Fabric of life: Paryāpti prāṇāpana in Jaina agama. *Indian J. Hist. Sci.*, 1992, 27: 223-229.

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1296 **Smith, Brian K.** Classifying animals and humans in ancient India. *Man*, 1991, 26: 527-548.

35.1d. Pseudo-science *(natural magic, alchemy, astrology)*

1297 **Vāgbhaṭa.** Rasa ratna samuccaya. Edited with English translation and notes by Damodar Joshi. *Indian J. Hist. Sci.*, 1987, 22: supplement.

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35.1e. Technology, travel, exploration, and geography

1298 **Biswas, Arun Kumar.** *Rasa-Ratna-Samuccaya* and mineral processing state-of-art in the 13th century A.D. India. *Indian J. Hist. Sci.*, 1987, 22: 29-46.

On metallurgy in this Sanscrit alchemical and phamaceutical text by Śrī Vāgbhaṭa.

1299 **Deshpande, Vijaya.** "Vangastambhanaśodhanam": A chapter on metallurgy of tin in Sanscrit alchemical text *Rasopaniṣad*. *Indian J. Hist. Sci.*, 1992, 27: 121-131.

1300 **Krishnamurthy, Radha.** Perfumery in ancient India. *Indian J. Hist. Sci.*, 1987, 22: 71-79.

1301 **Kulkarni, R.P.** Development of engineering and technology in India from 1000 B.C. to 1000 A.D. as revealed in *Rājatarangiṇī*. *Indian J. Hist. Sci.*, 1987, 22: 316-327.

1302 **Ramaseshan, Sita.** The history of paper in India up to 1948. *Indian J. Hist. Sci.*, 1989, 24: 103-121.

1303 **Sharma, Vijaya; Bhardwaj, H.C.** Weighing devices in ancient India. *Indian J. Hist. Sci.*, 1989, 24: 329-336.

35.1f. Medicine and health

1304 **Bhugra, Dinesh.** Psychiatry in ancient Indian texts: A review. *Hist. Psychiat.*, 1992, 3: 167-186.

1305 **Joshi, B.C.** Neurology in ancient India: *Ājnā cakra*–A physiological reality. *Indian J. Hist. Sci.*, 1987, 22: 292-315.

1306 **Mahdihassan, S.** The five souls of Indian medicine. *Indian J. Hist. Sci.*, 1989, 24: 337-340.

1307 **Prakash, Ved; Mehrotra, B.N.** Anthelmintic plants in traditional remedies in India. *Indian J. Hist. Sci.*, 1987, 22: 332-340.

1308 **Saxena, Nirmal.** *Yogāratnākara*: An important source book in medicine. *Indian J. Hist. Sci.*, 1992, 27: 15-29.

1309 **Tyagi, R.P.S.** Importance of studying veterinary science literature in ancient India. *Indian J. Hist. Sci.*, 1987, 22: 93-94.

Introduction to a special issue containing eleven papers on the history of veterinary science in India.

35.1g. Social sciences *(anthropology, psychology, etc.)*

35.2. THE FAR EAST *(to c. 1600)*

35.2a. General history; Philosophy

1310 **Bowie, Nigel.** Why wasn't the Scientific Revolution a Korean one? Pp. 25-49 in James Huntley Grayson (ed.) *Koreana: Ten years of Korean studies at the University of Sheffield, 1979-1989*. Sheffield: Univ. of Sheffield, 1991.

The article looks at Korean intellectual history from 1400 to 1800 and concludes that, as Korean thinkers were not challenged by doubt, competing ideas, refugees with alien ideas or new paradigms, they had little incentive to look afresh at the prevailing cosmology or investigate the world around them. Author's abstract.

1311 **Chine ciel et terre:** 5000 ans d'inventions et de découvertes. 438 pp., illus., bibl. Bruxelles: Musées Royaux d'Art et d'Histoire, 1988.

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1312 **Ho, Peng Yoke.** Chinese science: The traditional Chinese view. *Bull. Sch. Orient. Afr. Stud.*, 1991, 54: 506-519.

"In the study of Chinese science it is important to take into account the fact that there are many Chinese terms which do not convey exactly the same meanings to traditional and modern scholars. It is essential to try to put ourselves in the shoes of the former in order to have a better understanding of classical Chinese text."

1313 **Inkster, Ian.** Science, technology and economic development–Japanese historical experience in context. *Ann. Sci.*, 1991, 48: 545-563.

1314 **Van Norden, Bryan W.** Mencian philosophic psychology. *Diss. Abstr. Int.*, 1992, 52: 3315-A.

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1315 **Vogel, Hans Ulrich.** Zum 90. Geburtstag von Joseph Needham: Überlegungen zur Naturwissenschafts- und Technikgeschichte Chinas. *Z. Deut. Morgenländ. Ges.*, 1992, 142: 140-148.

35.2b. The exact sciences *(pure mathematics, optics, astronomy, music, theoretical mechanics, etc.)*

1316 **Cullen, Christopher.** Halley's comet and the "ghost" event of 10 BC. *Quart. J. Roy. Astron. Soc.*, 1991, 32: 113-119.

"Chinese records have been interpreted as stating that a transient object, probably either a comet or a nova, was observed in 10 BC. It is argued that the text in question is in fact a reference back to the impressive appearance of Halley's comet in 12 BC. There is therefore no evidence for a 10 BC event, and our data on the 12 BC event may receive a small addition." From the summary.

1317 **Dauben, Joseph W.** El teorema pitagórico y las matemáticas Chinas: Comentario de Liu Hui sobre el teorema Gou-Gu en el capítulo nueve del *Jiu Zhang Suan Shu*. *Mathesis*, 1991, 7: 279-301.

1318 **Fu, Daiwie.** Why did Liu Hui fail to derive the volume of a sphere? *Hist. Math.*, 1991, 18: 212-238.

1319 **Iannaccone, Isaia.** Misurare il cielo: L'antica astronomia cinese. (Serie didattica, 2.) iii + 218 pp., illus., notes, bibl. Napoli: Opera Universitaria, Dipartimento di Studi Asiatici, Istituto Universitario Orientale, 1991.

1320 **Im, Jyong Hyok.** On the evolution of cosmology in Korea. (In Japanese). *Kagakusi Kenkyu*, 1991, 30: 242-250.

1321 **Stephenson, F. Richard; Yau, Kevin K.C.** Astronomical records in the *Ch'un-ch'iu* chronicle. *J. Hist. Astron.*, 1992, 23: 31-51.

"The ancient Chinese chronicle known as the *Ch'un-ch'iu* (or *Spring and autumn annals*), which covers the period from 722 to 481 B.C., cites many observations of astronomical phenomena . . . In this paper we investigate the various astronomical records contained in the *Ch'un-ch'iu* in detail, paying particular regard to their reliability, dating accuracy and significance in the history of astronomy."

1322 **Stephenson, F. Richard.** A reinvestigation of the "double dawn" event recorded in the Bamboo Annals. *Quart. J. Roy. Astron. Soc.*, 1992, 33: 91-98.

"An allusion to a 'double dawn' phenomenon in an ancient Chinese chronicle, which has been identified as caused by a sunrise eclipse occuring in 899 B.C, is discussed . . . It is shown that an eclipse interpretation is implausible, not least because the eclipse in question was only annular."

1323 **Swetz, Frank J.** The Sea Island Mathematical Manual: Surveying and mathematics in ancient China. xi + 73 pp., illus., glossary, notes, bibl., index. University Park: Pennsylvania State Univ. Press, 1992.

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35.2c. Natural history *(zoology, botany, mineralogy, meteorology, geology, etc.)*

35.2d. Pseudo-science *(natural magic, alchemy, astrology)*

1324 **Cosmologie et divination** dans la Chine ancienne: Le compendium des cinq agents (*Wuxing dayi*, VIe siècle). Traduit et annoté par Marc Kalinowski. (Publications de l'École Française d'Extrême-Orient, 166.) 644 pp., illus., notes, bibl., index. Paris: École Française d'Extrême-Orient, 1991.

35.2e. Technology, travel, exploration, and geography

1325 **Di, Li.** Some records about the Arctic in early Chinese books. *Earth Sci. Hist.*, 1991, 10: 219-222.

1326 **Hocquet, Jean-Claude.** Production du sel et changement technique en Chine. *Annales*, 1991, 46: 1021-1039.

1327 **Unno, Kazutaka.** A bibliographical review of the history of Asian cartography, from the end of the Second World War. (In Japanese). *Kagakusi Kenkyu*, 1991, 30: 1-14.

1328 **Vogel, Hans Ulrich.** "Feuerbrunner" in China und ihre Bedeutung für die Technikgeschichte. *Heidelberger Jahrb.*, 1991, 35: 199-218.

1329 **Yoon, Hong Key.** The expression of landforms in Chinese geomantic maps. *Cartogr. J.*, 1992, 29: 12-15.

35.2f. Medicine and health

1330 **Hsu, Ta-ch'un.** Forgotten traditions in ancient Chinese medicine. [Translated and annotated by Paul U. Unschuld]. xi + 403 pp., illus., notes, index. Brookline, Mass.: Paradigm Publications, 1990.

1331 **Lam, Chiu-Wa; Berrios, G.E.** Psychological concepts and psychiatric symptomatology in some ancient Chinese medical texts. *Hist. Psychiat.*, 1992, 3: 117-128.

1332 **Mahdihassan, S.** A comparative study of Chinese cosmology-cum-humorology with eight elements. *Indian J. Hist. Sci.*, 1989, 24: 181-185.

1333 **Zeitlin, Judith T.** The petrified heart: Obsession in Chinese literature, art, and medicine. *Late Imper. China*, 1991, 12(1): 1-26.

35.2g. Social sciences *(anthropology, psychology, etc.)*

35.3. PRE-COLUMBIAN AMERICA *(to c. 1500)*

1334 **Malville, J. McKim; Eddy, Frank W.; Ambruster, Carol.** Lunar standstills at Chimney Rock. *Archaeoastronomy*, 1991, 16: 43-50.
"We present evidence for observation of lunar standstill within the Chimney Rock Archaeological Area in Southwestern Colorado."

1335 **Vass, Rüdiger.** Die alten Astronomen der Neuen Welt: Astroarchäologische Entdeckungen in Amerika. *Naturwiss. Rundsch.*, 1992, 45: 295-304.

36. RENAISSANCE AND REFORMATION *(c. 1450-1600)*

36a. General history; Philosophy

1336 **Antonaci, Antonio.** Filosofia e scienza alla vigilia dell'età galileiana. 142 pp., illus., notes, index. Galatina: Panico, 1990.
Discusses in particular Francesco Patrizi da Cherso's *Pancosmia.*

1337 **Arnold, Klaus.** Johannes Trithemius (1462-1516). Zweite, bibliographisch und überlieferungsgeschichtlich neu bearbeitete Auflage. (Quellen und Forschungen zur Geschichte des Bistums und Hochstifts Würzburg, 23.) xi + 350 pp., notes, bibl., index. Würzburg: Schöningh, 1991.

1338 **Bossy, John.** Giordano Bruno and the embassy affair. xix + 294 pp., illus., notes, bibl., index. New Haven: Yale Univ. Press, 1991.

1339 **Braybrook, Jean.** Science and myth in the poetry of Remy Belleau. *Renaiss. Stud.*, 1991, 5: 277-287.

1340 **Cardano, Girolamo.** Cardan, 1501-1576: Ma vie. Traduction du latin par Jean Dayre, révisée et éditée par Étienne Wolff. Préface d'Étienne Wolff. Annexes: Introduction et notes de Jean Dayre à sa traduction (1936). (Un savant, une époque.) 284 + xliv pp., illus., notes, bibl., index. Paris: Belin, 1991.

1341 **Copenhaver, Brian P.** Did science have a Renaissance? *Isis*, 1992, 83: 387-407.

1342 **De Falco, Paola.** Bellarmino e la scienza. Pp. 541-569 in *Bellarmino e la Controriforma: Atti del simposio internazionale di studi.* Sora: Centro di Studi Sorani "V. Patriarca", 1990.

1343 **Ficino, Marsilio.** Lettere. I: Epistolarum familiarium liber I. A cura di Sebastiano Gentile. ccxcix + 322 pp., notes, index. Firenze: Olschki, 1990.

1344 **Frigerio, Maurilio.** Invito al pensiero di Giordano Bruno. (Invito al pensiero, 13.) 215 pp., bibl., index. Milano: Mursia, 1991.

1345 **Füssl, Wilhelm.** Der Nachlass Peter Apians: Eine Erbstreitigkeit vor dem Reichskammergericht. *Deut. Mus. Wiss. Jahrb.*, 1991: 99-130.

1346 **Garin, Eugenio.** The philosopher and the magus. Pp. 123-153 in Eugenio Garin (ed.) *Renaissance characters.* Chicago: Univ. of Chicago Press, 1991.

1347 **Garin, Eugenio.** Gli umanisti e le scienze. *Nuova Crit.*, 1990, 15-16: 5-20.

1348 **Gerl, Hanna-Barbara.** "Rhetorica perfetta": Francesco Patrizis Ideal einer geometrischen Rhetorik: Ein Blick auf die Methodologie des 16. Jahrhunderts. *Rhetorica*, 1988, 6: 335-354.

"Patrizi's desire to systematize rhetoric 'more mathematico' finds its ultimate end in making language a precise instrument for science."

1349 **Giovan Battista Della Porta** nel'Europa del suo tempo. Prefazione di Eugenio Garin. Atti del Convegno "Giovan Battista Della Porta", Vico Equense-Castello Giusso, 29 settembre-3 ottobre 1986. [A cura di Maurizio Torrini]. (Laboratorio, 1.) 609 pp., illus., notes, index. Napoli: Guida, 1990.

Contents: MIRKO D. GRMEK: Portrait psychologique de Giovan Battista Della Porta. CESARE VASOLI: L'"analogia universale": La retorica come "semeiotica" nell'opera del Della Porta. GIOACCHINO PAPARELLI: Dalla *Magia naturale* alla *Taumatologia*. COSIMO CAPUTO: Un manuale di semiotica del Cinquecento: Il *De humana physiognomonia* di Giovan Battista Della Porta. WOLF-DIETER MÜLLER-JAHNCKE: Die *Phytognomonica* Giovan Battista Della Portas als medizinische Signaturenlehre. ENRICO PERUZZI: Aspetti della medicina nell'opera di Giovan Battista Della Porta. PIER DANIELE NAPOLITANI: La matematica nell'opera di Giovan Battista Della Porta. GERMANA ERNST: I poteri delle streghe tra cause naturali e interventi diabolici: Spunti di un dibattito. GIOVANNI AQUILECCHIA: "In facie prudentis relucit sapientia": Appunti sulla letteratura metoposcopica tra Cinque e Seicento. ALFONSO INGEGNO: Cardano e Della Porta: Alcune premesse per un confronto. HÉLÈNE VEDRINE: Della Porta et Bruno: Sur la nature et la magie. GRAHAM REES: Bacon's *Sylva sylvarum*: Prelude to remarks on the influence of the *Magia naturalis*. JEAN MICHEL GARDAIR: L'immagine di Della Porta in Francia. ARMAND BEAULIEU: L'influence de Della Porta sur la physique en France au XVIIe siècle. ITALO MICHELE BATTAFARANO: Spee–Harsdörffer–Knorr von Rosenroth: La ricezione di Giovan Battista Della Porta in Germania dalle polemiche demonologiche alla genesi del linguaggio scientifico tedesco. LINA BOLZONI: Retorica, teatro, iconologia nell'arte della memoria del Della Porta. MICHELE RAK: Modelli e macchine del sapere nel teatro di Giovan Battista Della Porta. LOUISE GEORGE CLUBB: Ideologia e politica nel teatro dellaportiano. GIORGIO BÀRBERI SQUAROTTI: Della Porta o il teatro del mondo. ACHILLE MANGO: Tradizione e novità nel teatro di Giovan Battista Della Porta. RAFFAELE SIRRI: L'artificio linguistico delle commedie di Giovan Battista Della Porta. SILVIA BIASSONI: Note sul Manierismo della *Trappolaria*. ANNA CERBO: Il narrativo di una commedia di Giovan Battista Della Porta. TERESA CIRILLO: Lo spagnolo nelle commedie di Della Porta.

1350 **Grafton, Anthony.** New worlds, ancient texts: The power of tradition and the shock of discovery. With April Shelford and Nancy Siraisi. x + 282 pp., illus., notes, bibl., index. Cambridge: Belknap Press of Harvard Univ. Press, 1992.

On the influence of New World discoveries on the intellectual foundations of the Old World.

1351 **Guerrini, Mauro.** Bibliotheca Leonardiana, 1493-1989. Presentazioni di Augusto Marinoni, Carlo Pedretti. 3 vols.; 2216 pp. Milano: Editrice Bibliografica, 1990.

Collection of Leonardo's own writings, texts of Leonardo scholars, and all important references to him. Also available in a floppy-disk version.

1352 **Guinsburg, Arlene Miller.** Late German humanism and hermeticism: A reassessment of the continuity thesis. Pp. 197 -211 in Manfred P. Fleischer (ed.) *The harvest of humanism in Central Europe: Essays in honor of Lewis W. Spitz*. St. Louis, Mo: Concordia, 1992.

1353 **Hankins, James.** The myth of the Platonic Academy of Florence. *Renaiss. Quart.*, 1991, 44: 429-475.

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1354 **Iorio, Dominick A.** The Aristotelians of Renaissance Italy: A philosophical exposition. (Studies in the history of philosophy, 24.) vii + 321 pp., notes, bibl., index. Lewiston, N.Y.: Mellen, 1991.

1355 **Istituto Veneto di Scienze, Lettere ed Arti.** Edizioni del Cinquecento possedute dall'Istituto Veneto di Scienze, Lettere ed Arti. Catalogo breve a cura di Caterina Griffante. 224 pp., indexes. Venezia: Istituto Veneto di Scienze, Lettere ed Arti, 1989.

1356 **Leslie, Marina A.** Patterns for perfecting: Utopian method in Thomas More and Francis Bacon. *Diss. Abstr. Int.*, 1992, 53: 505-A.

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1357 **Lohr, Charles H.** The 16th-century transformation of the Aristotelian division of the speculative sciences. Pp. 49-58 in Donald R. Kelley, Richard H. Popkin (eds.) *The shapes of knowledge from the Renaissance to the Enlightenment*. Dordrecht: Kluwer Academic, 1991.

1358 **Maiorino, Giancarlo.** Leonardo da Vinci: The Daedalian mythmaker. xiii + 306 pp., illus., notes, index. University Park: Pennsylvania State Univ. Press, 1992.

1359 **Mehl, James V. (ed.)** Humanismus in Köln: Humanism in Cologne. (Studien zur Geschichte der Universität zu Koln, 10.) xii + 228 pp., illus., notes, bibl., index. Köln: Böhlau, 1991.

Contents: JAMES V. MEHL: Humanism in the home town of the "obscure men". CHARLES G. NAUERT, JR.: Humanists, scholastics, and the struggle to reform the University of Cologne, 1523-1525. WOLFGANG SCHMITZ: Das humanistische Verlagsprogramm Johannes Soters. CHARLES ZIKA: Agrippa of Nettesheim and his appeal to the Cologne Council in 1533: The politics of knowledge in early 16th-century Germany. GÜNTER BERS: Anmerkungen zu den Widmungsreden eines Kölner Humanisten: Zur literarischen Tätigkeit des Jacobus Omphalius. BIBLIOGRAPHIE zum Kölner Humanismus/Bibliography on Cologne humanism.

1360 **Mikkeli, Heikki.** An Aristotelian response to Renaissance humanism: Jacopo Zabarella on the nature of arts and sciences. (Societas Historica Finlandiae, Studia historica, 41.) 196 pp., notes, bibl., index. Helsinki: Societas Historica Finlandiae, 1992.

1361 **Moyer, Ann E.** Musica scientia: Musical scholarship in the Italian Renaissance. vii + 325 pp., notes, bibl., index. Ithaca, N.Y.: Cornell Univ. Press, 1992.

1362 **Otto, Stephan.** Das Wissen des Ähnlichen: Michel Foucault und die Renaissance. 137 pp., notes. Frankfurt am Main: Lang, 1992.

1363 **Panizza, Letizia.** Torquato Tasso's *Il mondo creato* and Boethius, a neglected model. *Renaiss. Stud.*, 1991, 5: 301-314.
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1364 **Pattin, Adriaan.** Un grand commentateur d'Aristote: Agostino Nifo. Pp. 787-803 in Burkhard Mojsisch, Olaf Pluta (eds.) *Historia philosophiae Medii Aevi: Studien zur Geschichte der Philosophie des Mittelalters.* Amsterdam: Grüner, 1991.

1365 **Sturlese, Rita.** Niccolò Cusano e gli inizi della speculazione del Bruno. Pp. 953-966 in Burkhard Mojsisch, Olaf Pluta (eds.) *Historia philosophiae Medii Aevi: Studien zur Geschichte der Philosophie des Mittelalters.* Amsterdam: Grüner, 1991.

1366 **Trombetti Budriesi, Anna Laura.** Un giurista e un astrologo: Andrea Barbazza e Girolamo Manfredi: Qualche divagazione sull'insegnamento universitario a Bologna nel secondo Quattrocento. Pp. 197-223 in Ovidio Capitani (ed.) *Cultura universitaria e pubblici poteri a Bologna dal XII al XV secolo.* Bologna: Istituto per la Storia di Bologna, 1990.

1367 **Vasoli, Cesare.** Francesco Patrizi da Cherso. (Humanistica, 5.) xv + 271 pp., notes, index. Roma: Bulzoni, 1989.
Collection of essays.

1368 **Vasoli, Cesare.** Un "medico" per i "sapienti": Ficino e i *Libri de vita.* Pp. 1013-1028 in Burkhard Mojsisch, Olaf Pluta (eds.) *Historia philosophiae Medii Aevi: Studien zur Geschichte der Philosophie des Mittelalters.* Amsterdam: Grüner, 1991.

1369 **Weisheit und Wissenschaft:** Cusanus im Blick auf die Gegenwart. Akten des Symposions in Bernkastel-Kues und Trier vom 29. bis 31. März 1990. Hrsg. von Rudolf Haubst und Klaus Kremer. (Mitteilungen und Forschungsbeiträge der Cusanus-Gesellschaft, 20.) 286 pp., notes, index. Trier: Paulinus-Verlag, 1992.
Contents: RUDOLF HAUBST: Das Neue in *De docta ignorantia.* GIOVANNI SANTINELLO: Weisheit und Wissenschaft im cusanischen Verständnis. Ihre Einheit und Unterschiedenheit. KLAUS REINHARDT: Christus: "Wort und Weisheit" Gottes. KLAUS KREMER: Weisheit als Voraussetzung und Erfüllung der Sehnsucht des menschlichen Geistes. HANS GERHARD SENGER: Griechisches und biblisch-patristisches Erbe im cusanischen Weisheitsbegriff. STEFAN SCHNEIDER: Cusanus als Wegbereiter der neuzeitlichen Naturwissenschaft? JOSEF STALLMACH: Der Verlust der Symbiose von Weisheit und Wissenschaft in Neuzeit und Gegenwart. KAZUHIKO YAMAKI: Die cusanische Weisheitskonzeption im Vergleich zur ostasiatischen Weisheitstradition.

1370 **Zappella, Giuseppina.** IRIDE: Iconografia rinascimentale italiana. Dizionario enciclopedico: Figure, personaggi, simboli e allegorie nel libro italiano del Quattrocento e del Cinguecento. Volume 1: Abaco-Aiuto. Presentazione di Piero Innocenti. (Grandi opere, 5.) xxi + 751 pp., bibl. Milano: Editrice Bibliografica, 1992.
Encyclopedia of 15th- and 16th-century illustrations, including scientific and natural history.

36b. Mathematics *(pure and applied mathematics, mathematical logic, and statistics)*

1371 **Aquilecchia, Giovanni.** Bruno's mathematical dilemma in his poem *De minimo. Renaiss. Stud.*, 1991, 5: 315-326.

1372 **Bertoloni Meli, Domenico.** Guidobaldo dal Monte and the Archimedean revival. *Nuncius*, 1992, 7(1): 3-34.
Examines Guidobaldo dal Monte's role in Italian mathematics in the second half of the 16th century, comparing his views with those of Benedetti and Commandino.

1373 **Doyle, John P.** Suárez on the unity of a scientific habit. *Amer. Cath. Phil. Quart.*, 1991, 65: 311-334.
"Despite the fact that it is made up of many different conclusions and despite the fact that it undergoes development, how does a science such as geometry have and retain its unity?"

1374 **Elkins, James.** Renaissance perspectives. *J. Hist. Ideas*, 1992, 53: 209-230.
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1375 **Esteban Piñeiro, Mariano; Vicente Maroto, M. Isabel.** El nivel atribuido a Juan de Herrera y su fundamento geométrico. *Llull*, 1991, 14: 31-57.

1376 **Frangenberg, Thomas.** The angle of vision: Problems of perspectival representation in the 15th and 16th centuries. *Renaiss. Stud.*, 1992, 6: 1-45.

1377 **García Tapia, Nicolás; Vicente Maroto, Maria Isabel.** Los dos libros de la geometría práctica de Fineo traducidos por Girava y ordenados por Lastanosa. *Asclepio*, 1991, 43(1): 249-265.
On a manuscript Spanish translation of two books of practical geometry by Oronce Finé in the National Library in Madrid. Argues that the translator was Jerónimo Girava rather than Pedro Juan de Lastanosa, as usually supposed.

1378 **Glowatzki, Ernst; Göttsche, Helmut.** Die Tafeln des Regiomontanus: Ein Jahrhundertwerk. (Algorismus: Studien zur Geschichte der Mathematik und der Naturwissenschaften, 2.) v + 224 pp., notes, bibl., index. München: Institut für Geschichte der Naturwissenschaften, 1990.

1379 **Grössing, Helmuth.** Mathematik der Renaissance als Rechenmeisterei. Pp. 45-48 in Volker Bialas (ed.) *Naturgesetzlichkeit und Kosmologie in der Geschichte.* Stuttgart: Steiner, 1992.

1380 **Heather, Noel.** Number, symmetry, and order in du Bartas's *Semaines*: Reform of church and sky? *Renaiss. Stud.*, 1991, 5: 288-300.

1381 **Kaunzner, Wolfgang.** 500 Jahre–erstes grosses deutsches Rechenbuch: Erstmalige Verwendung der Zeichen plus und minus in einem Buch. *Acta Albertina Ratisbon.*, 1991, 47: 159-162.

On the first use of plus and minus in Johannes Widmann von Eger's arithmetic book of 1489.

1382 **Knobloch, Eberhard.** Christoph Clavius: Ein Namen- und Schriftenverzeichis zu seinen *Opera mathematica. Boll. Stor. Sci. Mat.*, 1990, 10: 135-189.

1383 **Laird, W.R.** Archimedes among the humanists. *Isis*, 1991, 82: 629-638.

". . . I should like to argue here that the humanists' role in the Archimedean revival was in establishing, from sources unknown or neglected in the Middle Ages, the reputation of Archimedes as a practical designer and builder of useful instruments and machines. Once established, this reputation helped to bring Archimedes to the attention of practical, mathematically talented men, who subsequently found by studying his works (which humanists usually did not do) a mathematician of sublime and prodigious power."

1384 **Lüneberg, Heinz.** Fibonaccis aufsteigende Kettenbrüche, ein elegantes Werkzeug mittelalterlicher Rechenkunst. *Sudhoffs Arch.*, 1991, 75: 129-139.

1385 **Maas, Joerg F.** The dissolution of contradictory patterns of explication: Method and the interdependencies between logic and mathematics in the 16th and early 17th centuries. *Hist. Scientiarum*, 1991, n.s. 1: 63-70.

36c. Physical sciences *(astronomy, physics, chemistry)*

1386 **Apianus, Petrus.** Instrument Buch. [Mit einem Nachwort von Jürgen Hamel]. 63 leaves + xiv pp., illus. Leipzig: Reprintverlag im Zentralantiquariat der DDR, 1990.

Facsimile reprint of the Ingolstadt, 1533 edition.

1387 **Bacchelli, Franco.** Sulla cosmologia di Basilio Sabazio e Scipione Capece. *Rinascimento*, 1990, 30: 107-152.

1388 **Bauer, Georg.** Giovanni Battista Benedetti, Vordenker und Wegbereiter der gallileischen Physik: Eine wissenschaftshistorische und wissenschaftstheoretische Analyse der Vörlauferproblematik in der Entwicklung der Physik. (Reihe Physik, 7.) 301 pp., illus. Thun: Deutsch, 1991.

1389 **Capra, Luciano.** Due letture cosmografiche del Tasso. *Boll. Stor. Sci. Mat.*, 1990, 10: 191-287.

Presents the texts of Tasso's manuscript annotations in Girolamo Fracastoro's *Opera omnia* (Venice, 1574).

1390 **Clark, William.** Poetics for scientists. *Stud. Hist. Phil. Sci.*, 1992, 23: 181-192.

Essay review of Fernand Hallyn, *The poetic structure of the world: Copernicus and Kepler* (1990).

1391 **Copernicus, Nicolaus.** Das neue Weltbild: 3 Texte. Lateinisch-deutsch, übersetzt, hrsg. und mit einer Einleitung und Anmerkungen versehen von Hans Günter Zekl. Im Anhang eine Auswahl aus der *Narratio prima* des G.J. Rheticus. (Philosophische Bibliothek, 300.) lxxxiv + 254 pp., bibl. Hamburg: Meiner, 1990.

1392 **Coyne, George V.** Bellarmino e la nuova astronomia nell'età della Controriforma. Pp. 571-577 in *Bellarmino e la Controriforma: Atti del simposio internazionale di studi.* Sora: Centro di Studi Sorani "V. Patriarca", 1990.

1393 **Goddard, Charlotte.** Pontano's use of the didactic genre: Rhetoric, irony, and the manipulation of Lucretius in *Urania. Renaiss. Stud.*, 1991, 5: 250-262.

"In this paper I propose that one of Pontano's reasons for writing *Urania* was not just to teach astronomy but also to defend it. Pontano used *Urania*, as he did *De rebus coelestibus*, to argue that astronomy was indeed compatible with free will and providence. This explains his use of didactic poetry–by convention a genre well suited to persuasive argument. And for this purpose, Lucretius is an obvious and ingenious choice of model."

1394 **Goddu, André.** Natural classification: Pierre Duhem's continuity thesis and the resolution of positivism. Pp. 329-348 in Burkhard Mojsisch, Olaf Pluta (eds.) *Historia philosophiae Medii Aevi: Studien zur Geschichte der Philosophie des Mittelalters.* Amsterdam: Grüner, 1991.

". . . an examination of Duhem's critique of Copernicus's and Galileo's realism shows that Duhem held a form of instrumentalism that was qualified by acceptance of a common-sense form of realism and by Duhem's notion of natural classification. The result is a more balanced account of Duhem's views about both the philosophy of science and the history of science."

1395 **Granada, Miguel A.** Bruno, Digges, Palingenio: Omogeneità ed eterogeneità nella concezione dell'universo infinito. *Riv. Stor. Fil.*, 1992, 47: 47-73.

1396 **Granada, Miguel A.** L'interpretazione bruniana di Copernico e la *Narratio prima* di Rheticus. *Rinascimento*, 1990, 30: 343-365.

1397 **Knobloch, Eberhard.** Christoph Clavius: Ein Astronom zwischen Antike und Kopernikus. Pp. 113-140 in Klaus Döring, Georg Wöhrle (eds.) *Vorträge des ersten Symposions des Bamberger Arbeitskreises "Antike Naturwissenschaft und ihre Rezeption"*. Wiesbaden: Harrassowitz, 1990.

1398 **Lajos, I. Bartha.** Egy Reneszánsz éggomb, mint csillagászati müszer: A Dorn-Bylica glóbusz, 1480-ból. (A Renaissance celestial globe serving as an astronomical instrument: The Dorn-Bylica globe, 1480). *Tech. Szemle*, 1990-91, 18: 87-96.

1399 **Lestringant, Frank.** L'atelier du cosmographe, ou L'image du monde à la Renaissance. 270 pp., illus., notes, bibl., index. Paris: Albin Michel, 1991.
A study of André Thevet.

1400 **Macagno, Enzo.** Leonardian fluid mechanics. 1: History of kinematics. 2: Inception of modern kinematics. (IIHR monograph, 112.) 127 pp., notes. Iowa City: Iowa Institute of Hydraulic Research, 1991.

1401 **Macagno, Enzo.** Some remarkable experiments of Leonardo da Vinci. *Houille Blanche*, 1991 (6): 463-471.
On Leonardo's experiments in fluid mechanics.

1402 **Metzger, Hans Christian.** Kirche: Mutter der Physik? Eine Einführung in die Geschichte der kopernikanischen Wende unter besonderer Berücksichtigung der Rolle der Kirche. (Abhandlungen zur Geschichte der Geowissenschaften und Religion/Umwelt-Forschung, Beiheft 1.) 151 pp., illus., notes, bibl., index. Bochum: Universitätsverlag Brockmeyer, 1992.
"A compilation of the recent researches on the role of church and theology in the rise of science in the period of 1500-1650. Detailed chapters on Copernicus, Bruno, Brahe, Kepler and Galilei." Author's abstract.

1403 **Nowak, Greg; Thagard, Paul.** Copernicus, Ptolemy, and explanatory coherence. Pp. 274-309 in Ronald N. Giere (ed.) *Cognitive models of science*. Minneapolis: Univ. of Minnesota Press, 1992.
Uses a computer program (ECHO) to model the competition between Copernican and Ptolemaic astronomy.

1404 **Otto, Stephan.** Geometrie und Optik in der Philosophie des Marsilio Ficino: Zur Entstehung der Ontologie des Funktionalismus in der Renaissance. *Phil. Jahrb.*, 1991, 98: 290-313.

1405 **Pavone, Mario.** Saggio critico sulle opere di Francesco Maurolico. 73 pp., illus., notes, index. Ragusa: Centro Studi "Feliciano Rossitto", 1987.

1406 **Ronan, Colin A.** Leonard and Thomas Digges. *Endeavour*, 1992, 16: 91-94.
Considers their possible invention of the telescope.

1407 **Sacerdoti, Gilberto.** Nuoro cielo, nuova terra: La rivelazione copernicana di *Antonio e Cleopatra* di Shakespeare. 412 pp., notes. Bologna: Il Mulino, 1990.

1408 **Schmeidler, Felix.** Über die copernicanischen Ephemeriden des Rheticus für 1551. *Sudhoffs Arch.*, 1992, 76: 122-125.

1409 **Shank, Michael H.** The "Notes on al-Biṭrūjī" attributed to Regiomontanus: Second thoughts. *J. Hist. Astron.*, 1992, 23: 15-30.
"Forty years ago, Francis Carmody published a brief 15th-century astronomical text under the title 'Regiomontanus' notes on al-Biṭrūjī's astronomy'. According to Carmody, the text showed that the Vienna-trained Regiomontanus (1436-76) was critical of the homocentric astronomical tradition . . . and also that he had misunderstood at a number of junctures the leading medieval proponent of that tradition, the 12th-century Spanish astronomer al-Biṭrūjī . . . A careful examination of both Carmody's published transcription and the manuscript shows . . . that his attribution of the notes to Regiomontanus is almost certainly an error."

1410 **Sobotko, Pawel.** O zaćmieniach słońca i księżyca obserwowanych Mikolaja Kopernika. (Copernicus's observations on the eclipse of the sun and moon.). *Kwart. Hist. Nauk. Tech.*, 1991, 36: 153-174.

1411 **Swerdlow, N.M.** Amico's homocentric spheres. *J. Hist. Astron.*, 1992, 23: 211-215.
Essay review of Mario Di Bono *Le sfere omocentriche di Giovan Battista Amico nell'astronomia del Cinquecento* (1990).

1412 **Swerdlow, N.M.** Annals of scientific publishing: Johannes Petreius's letter to Rheticus. *Isis*, 1992, 83: 270-274.
Presents the text of a letter by the Nuremberg publisher in which he expresses a desire to publish Copernicus's observations.

36d. Earth sciences *(geology and geophysics; geography, cartography, and geodesy; oceanography; travel, exploration and navigation; paleontology; mineralogy and crystallography; meteorology)*

1413 **Brunner, Kurt.** Die "Carta marina" des Olaus Magnus vom Jahre 1539. Pp. 45-57 in *Vorträge und Berichte, 5. Kartographiehistorisches Colloquium, Oldenbourg 1990.* Berlin: Reimer, 1991.

1414 **Delano-Smith, Catherine; Ingram, Elizabeth Morley.** Maps in bibles, 1500-1600: An illustrated catalogue. (Travaux d'Humanisme et Renaissance, 256.) xxxviii + 202 pp., illus., index. Genève: Droz, 1991.

1415 **Lestringant, Frank.** André Thevet, lecteur de Coelius Rhodiginus, ou les *Leçons antiques* au service du voyage au Levant. Pp. 273-290 in D. Cecchetti (et al., eds.) *L'aube de la Renaissance*. Genève: Slatkine, 1991.

1416 **Lestringant, Frank.** Le déclin d'un savoir: La crise de la cosmographie à la fin de la Renaissance. *Annales*, 1991, 46: 239-260.

1417 **Magalhães Godinho, Vitorino.** Entre mythe et utopie: Les grandes découvertes. La construction de l'espace et l'invention de l'humanité aux XVe et XVIe siècles. *Arch. Eur. Sociol.*, 1991, 32: 3-52.

1418 **Mesenburg, Peter.** Untersuchungen zur geometrischen Struktur und zur Genese der Portolankarte des Petrus Roselli aus dem Jahre 1449. Pp. 31-38 in *Vorträge und Berichte, 4. Kartographiehistorisches Colloquium, Karlsruhe 1988*. Berlin: Reimer, 1990.

1419 **Meurer, Peter H.** Fontes cartographici Orteliani: Das *Theatrum orbis terrarum* von Abraham Ortelius und seine Kartenquellen. 360 pp., maps, index. Weinheim: VCH, Acta Humaniora, 1991.

1420 **Rubin, R.** The map of Jerusalem (1538) by Hermanus Borculus and its copies–A carto-genealogical study. *Cartogr. J.*, 1990, 27: 31-39.

1421 **Russell, Jeffrey Burton.** Inventing the flat earth: Columbus and modern historians. Foreword by David Noble. xiv + 117 pp., illus., notes, bibl., index. New York: Praeger, 1991.

36e. Biological sciences *(zoology, botany, anatomy, physiology, physical anthropology; also applied biology, including certain aspects of agriculture, such as plant and animal breeding, economic entomology, etc.)*

1422 **Barona Vilar, Josep Lluis.** Cos humà i ordre social en la cultura Renaixentista. *Llull*, 1991, 14: 479-493.

On ideas of the human body in Renaissance Spain.

1423 **Bäumer, Änne.** Edward Wotton: Aristotelische Zoologie aristotelischer als bei Aristoteles. Pp. 187-211 in Klaus Döring, Georg Wöhrle (eds.) *Vorträge des ersten Symposions des Bamberger Arbeitskreises "Antike Naturwissenschaft und ihre Rezeption"*. Wiesbaden: Harrassowitz, 1990.

1424 **Biondi, Albano.** Ulisse Aldrovandi e l'eresia a Bologna. *Ann. Ist. Stor. Italo-Germ. Trento*, 1991, 17: 77-89.

1425 **Braun, Lucien.** Conrad Gessner. (Collection des grands suisses, 8.) 157 pp., illus., bibl. Genève: Slatkine, 1990.

1426 **Eisler, Colin.** Dürer's animals. xv + 369 pp., illus., index. Washington: Smithsonian Institution Press, 1991.

1427 **Glardon, Philippe.** Les comparaisons et les monstres: Figures structurales de la description zoologique dans *L'histoire de la nature des oyseaux* de Pierre Belon du Mans. *Anthropozoologica*, 1990, 13: 27-43.

1428 **Grieco, Allen J.** The social politics of pre-Linnean botanical classification. *I Tatti Stud.*, 1991, 4: 131-149.

"Everything, from the classification of the plant world according to a system of more or less 'noble' plants to ideas about the growth of plants and their ability to reach upwards, reveals the extent to which late medieval and early Renaissance botanists, agronomists and dietitians did not conceive of a strict separation between the natural world and the social world of man. The Great Chain of Being, which is the inherent structuring principle behind the botanical and dietetic theories examined, was also the means by which social hierarchies were projected onto the natural world."

1429 **Hall, J.J.** The classification of birds, in Aristotle and early modern naturalists (II). *Hist. Sci.*, 1991, 29: 223-243.

"My aim in the second part of this paper is to examine Aristotle's influence on the classifications adopted by early modern writers on birds: in particular, Edward Wotton, Belon, Gesner, Aldrovandi, and Willughby and Ray."

1430 **Hawkes, J.G.; Francisco-Ortega, J.** The potato in Spain during the late 16th century. *Econ. Bot.*, 1992, 46: 86-97.

1431 **Hoppe, Brigitte.** Rezeption und Wandlung der antiken Forschungsgrundsätze: Zur Eigenständigkeit der humanistischen Naturkunde aufgrund unbeachteter und unbearbeiteter Quellen. Pp. 141-185 in Klaus Döring, Georg Wöhrle (eds.) *Vorträge des ersten Symposions des Bamberger Arbeitskreises "Antike Naturwissenschaft und ihre Rezeption"*. Wiesbaden: Harrassowitz, 1990.

1432 **La Garanderie, M.-M. de.** Travaux italiens et français sur Pline l'Ancien: L'édition parisienne de Nicolas Bérault (1516). Pp. 209-224 in D. Cecchetti (et al., eds.) *L'aube de la Renaissance*. Genève: Slatkine, 1991.

1433 **López Piñero, José M.** The Pomar Codex (ca. 1590): Plants and animals of the Old World and from the Hernandez expedition to America. *Nuncius*, 1992, 7(1): 35-52.

1434 **Olmi, Giuseppe.** "Molti amici in varij luoghi": Studio della natura e rapporti epistolari nel secolo XVI. *Nuncius*, 1991, 6(1): 3-31.

Specifically, on the correspondence of Francesco Calzolari, Ulisse Aldrovandi, Giuseppe Casabona (Joseph Goedenhuyze) and Ferrante Imperato with the German physician Joachim Camerarius.

1435 **Pardo Tomás, José.** Obras españolas sobre historial natural y materia médica americanas en la Italia del siglo XVI. *Asclepio*, 1991, 43(1): 51-94.

1436 **Reeds, Karen Meier.** Botany in medieval and Renaissance universities. (Harvard dissertations in the history of science.) xix + 274 pp., illus., notes, bibl., index. New York: Garland, 1991.

1437 **Rydén, Mats.** William Turner: En portalgestalt i engelsk naturalhistoria. (William Turner: A pioneer of English natural history). *Svenska Linnésällsk. Årssk.*, 1990-91: 35-56.

1438 **Sehm, Gunter G.** The first European bison illustration and the first Central European exhibit of a living bison. With a table of the 16th century editions of Francisco López de Gómara. *Arch. Natur. Hist.*, 1991, 18: 323-332.

The first bison illustration appeared in López de Gómara's *Historia general de las Indias* (1552 etc.). The first exhibit was in Zurich in 1768.

1439 **Solomon, Julie Robin.** From species to speculation: Naming the animals with Calvin and Bacon. Pp. 77-113 in Elizabeth D. Harvey, Kathleen Okruhlik (eds.) *Women and reason.* Ann Arbor: Univ. of Michigan Press, 1992.

Examines how Calvin and Bacon interpreted the biblical episode of Adam's naming of the animals.

1440 **Valcárcel Martínez, Simón.** El Padre José de Acosta. *Thesaurus*, 1989, 44: 389-428.

36f. Social sciences *(psychology, cultual anthropology, sociology, economics)*

1441 **Bandrés, Javier; Llavona, Rafael.** Minds and machines in Renaissance Spain: Gómez Pereira's theory of animal behavior. *J. Hist. Behav. Sci.*, 1992, 28: 158-168.

1442 **Benzenhöfer, Udo; Rotzoll, Maike.** Zur "Anthropologia" (1533) von Galeazzo Capella: Die früheste bislang bekannte Verwendung des Begriffs Anthropologie. *Medizinhist. J.*, 1991, 26: 315-320.

1443 **Bruno, Giordano.** On the composition of images, signs and ideas. Translated by Charles Doria. Edited and annotated by Dick Higgins. Foreword by Manfredi Piccolomini. xlviii + 377 pp., illus., notes, index. New York: Willis, Locker & Owens, 1991.

1444 **Campbell, Mary B.** The illustrated travel book and the birth of ethnography: Part 1 of De Bry's *America.* Pp. 177-195 in David G. Allen, Robert A. White (eds.) *The work of dissimilitude: Essays from the 6th Citadel Conference on Medieval and Renaissance Literature.* Newark: Univ. of Delaware Press; London: Associated University Presses, 1992.

1445 **Grieco, Sara F. Matthews.** Ange ou diablesse: La représentation de la femme au XVIe siècle. 495 pp., illus., notes, index. Paris: Flammarion, 1991.

1446 **Klapisch-Zuber, Christiane.** The genesis of the family tree. *I Tatti Stud.*, 1991, 4: 105-129.

Discusses the use of the image of the tree as a comparative device in representing the family in the 15th century.

1447 **Milbrath, Susan.** Representations of Caribbean and Latin American Indians in 16th-century European art. *Arch. Völkerkunde*, 1991, 45: 1-38.

36g. Medicine and medical sciences

1448 **Alchon, Suzanne Austin.** Native society and disease in colonial Ecuador. (Cambridge Latin America studies, 71.) viii + 151 pp., notes, glossary, bibl., index. Cambridge: Cambridge Univ. Press, 1991.

Examines especially those infections introduced by Europeans during the 16th century.

1449 **Alpago, Andrea.** Il Canone di Avicenna fra Europa e Oriente nel primo Cinquecento: L'*Interpretatio Arabicorum nominum* di Andrea Alpago. A cura di Giorgio Vercellin. 143 pp., illus., notes. Torino: UTET, 1991.

An edition of Alpago's *Interpretatio Arabicorum nominum* (Venice, 1544) with a lengthy introduction.

1450 **Arrizabalaga, Jon; García-Ballester, Luis; Gil-Aristu, José Luis.** Del manuscrito al primitivo impreso: La labor editora de Francesc Argilagues (fl. ca. 1470-1508) en el Renacimiento médico italiano. *Asclepio*, 1991, 43(1): 3-49.

On the work of Argilagues, a Valencian doctor who established himself professionally in Italy, as one of the earliest editors of medical works for the printing press.

1451 **Beck, William J.** Montaigne et Paré: Leurs idées sur les monstres. *Rinascimento*, 1990, 30: 317-342.

1452 **Carmichael, Ann G.** Contagion theory and contagion practice in 15th-century Milan. *Renaiss. Quart.*, 1991, 44: 213-256.

1453 **Garozzo, Salvatore.** *De pulsibus et de urinis*: Note di semeiotica da un trattato di medicina del secolo XVI. *Mem. Rend. Accad. Sci. Lett. Belle Arti Zelanti Dafnici Acireale*, 1990, 10: 269-315.

On book 3 of Jean François Fernel's *Universa medicina.*

1454 **Gigliotti, Gilbert L.** The Alexandrian Fracastoro: Form and meaning in the myth of syphilus. *Renaiss. Reform.*, 1990, 26: 261-269.

A literary study of Fracastoro's poem.

1455 **Grafinger, Christine Maria.** L'opinion populaire et la peste en France et dans les pays voisins au XVIe siècle. *Francia*, 1992, 18(2): 1-21.

1456 **Griffenhagen, George B.** The materia medica of Christopher Columbus. *Pharm. Hist. (US)*, 1992, 34: 131-145.

1457 **Hayek, Simon.** Rāzī and Vesalius. (In Arabic). *J. Hist. Arabic Sci.*, 1991, 9: Arabic section.

1458 **Hoeniger, F. David.** Medicine and Shakespeare in the English Renaissance. 404 pp., notes, bibl., index. Newark: Univ. of Delaware Press; London: Associated University Presses, 1992.

1459 **James, F.E.** Some observations on the writings of Felix Platter (1536-1614) in relation to mental handicap. *Hist. Psychiat.*, 1991, 2: 103-108.

1460 **Lovoie, Guy.** Guillaume Budé à son médecin: Un inédit sur sa maladie. *Renaiss. Reform.*, 1991, 17: 37-56.

1461 **Mack, Charles R.** Montaigne in Italy: Of kidney stones and thermal spas. *Renaiss. Papers*, 1991: 105-124.
On Italian thermal spas described by Montaigne in his travel journal.

1462 **Manfredi, Girolamo.** Liber de homine: Il perché. A cura di Anna Laura Trombetti Budriesi e Fabio Foresti. Saggi di F. Foresti, Anna Maria Nada Patrone, Anna Laura Trombetti Budriesi. 237 pp., illus., notes. Bologna: Luigi Parma, 1988.

1463 **Moody, D. Branch.** Healing power in the Marian miracle books of Bavarian healing shrines, 1489-1523 A.D. *J. Hist. Med.*, 1992, 47: 68-90.
"In the late 15th century and early 16th century, several Catholic clergymen produced a series of printed miracle books which sought to alter popular notions of illness and cure by associating the act of physical healing with the Church's broader system of practices and beliefs. Based on events at a group of Bavarian Marian shrines, this miracle literature tells the story of how *healing* can profoundly affect the general beliefs and actions of individuals, and how the collective expression of these beliefs may alter the flow of history."

1464 **Mugnai Carrara, Daniela.** La biblioteca di Nicolò Leoniceno: Tra Aristotele e Galeno: Cultura e libri di un medico umanista. (Accademia Toscana di Scienze e Lettere "La Colombaria", studi 118.) 247 pp., notes, index. Firenze: Olschki, 1991.
Catalog of the library, with a lengthy introductory study.

1465 **Mugnai Carrara, Daniela.** La polemica "de cane rabido" di Nicolò Leoniceno, Nicolò Zocca e Scipione Carteromaco: Un episodio di filologia medico-umanistica. *Interpres*, 1989, 9: 196-236.

1466 **Müller, Ingo Wilhelm.** Iatromechanische Theorie und ärztliche Praxis im Vergleich zur galenistischen Medizin (Friedrich Hoffmann–Pieter van Foreest, Jan van Heurne). (Historische Forschungen: Im Auftrag der Historischen Kommission der Akademie der Wissenschaften und der Literatur, 17.) 320 pp., notes, bibl., index. Stuttgart: Steiner, 1991.

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Contents: PAOLO GALLUZZI: Le macchine senesi: Ricerca antiquaria, spirito di innovazione e cultura del territorio. LIONELLO G. BOCCIA: L'armamento difensivo nei trattati di Mariano di Iacopo detto il Taccola. GUSTINA SCAGLIA: Francesco di Giorgio, autore. MASSIMO MUSSINI: Un frammento del Trattato di Francesco di Giorgio Martini nell'archivio di G. Venturi alla Biblioteca Municipale di Reggio Emilia. PIETRO C. MARANI: Francesco di Giorgio a Milano e a Pavia: Conseguenze e ipotesi. MARTIN KEMP: "La diminutione di ciascun piano": La rappresentazione delle forme nello spazio di Francesco di Giorgio. VITTORIO MARCHIS: Nuove dimensioni per l'energia: Le macchine di Francesco di Giorgio. CARLO PEDRETTI: La campana di Siena. DANIELA LAMBERINI: La fortuna delle macchine senesi nel Cinquecento. GIANLUCA BELLI: Colonne, obelischi, piramidi: Le macchine per lo spostamento dei pesi. ANGELO CERIZZA, MARCO BENI: Disegni e simulazioni tridimensionali di macchine di Taccola e Francesco di Giorgio. VITTORIO MARCHIS, GIUSE SCALVA: Le macchine di Francesco di Giorgio attraverso lo schermo. CATALOGO: I Sezione: Taccola e Francesco di Giorgio autori: Nascita e fortuna di un nuovo genere letterario. II Sezione: Il controllo delle acque. III Sezione: L'arte della guerra. IV Sezione: Città e macchine. V Sezione: Energia per le macchine. ENRICA CALCHINI: Glossario dei termini tecnici del *Trattato I* (Ms. Saluzziano 148) di Francesco di Giorgio. GIUSEPPE CHIRONI: Repertorio dei documenti riguardanti Mariano di Iacopo detto il Taccola e Francesco di Giorgio Martini.

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1488 **Dee, John.** Das Büchlein der Venus (Libellus Veneris nigro sacer): Eine magische Handschrift des 16. Jahrhunderts. Hrsg., übersetzt und kommentiert von Jörg M. Meier. (Mundus Reihe Volkskunde, 5.) viii + 159 pp., illus., notes. Bonn: Holos, 1990.

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1494 **Klutstein, Ilana.** Marcile Ficin et Hermès Trismégiste: Quelques notes sur la traduction du *Pimandre* dans la Vulgata de Ficin. *Renaiss. Reform.*, 1990, 26: 213-222.

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1496 **Midelfort, H.C. Erik.** Social history and biblical exegesis: Community, family, and witchcraft in 16th-century Germany. Pp. 7-20 in David C. Steinmetz (ed.) *The Bible in the 16th century.* Durham, N.C.: Duke Univ. Press, 1990.

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37.1. SEVENTEENTH CENTURY

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1513 **Bečková, Marta; Bieńkowski, Tadeusz; Čapková, Dagmar.** Znajomość dziel Jana Amosa Komeńskiego na ziemiach czeskich slowackich i polskich od polowy XVII w. do czasów obecnych. 164 pp., notes. Warszawa: Polska Akademia Nauk, Instytut Historii Nauki, Oświaty i Techniki, 1991.

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1516 **La bibliothèque** de Peiresc: Philosophie. Établi par Édith Bayle, Agnès Bresson et Jean-François Maillard, avec la collaboration, pour l'informatique, d'Agnès Guillaumont. 143 pp., index. Paris: Centre National de la Recherche Scientifique, 1990.

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1519 **Boesky, Amy.** "Outlandish-fruits": Commissioning Nature for the museum of man. *ELH*, 1991, 58: 305-330.

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1538 **Dupleix, Scipion.** La métaphysique. Texte revu par Roger Ariew. (Corpus des oeuvres philosophiques en langue française.) 909 pp. Paris: Fayard, 1992.

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1615 **Singh, Virendra.** Why did the Scientific Revolution take place in Europe and not elsewhere? *Indian J. Hist. Sci.*, 1987, 22: 341-353.

1616 **Snider, Alvin.** Bacon, legitimation, and the "origin" of Restoration science. *Eighteenth Cent. Theory Interpr.*, 1991, 32: 119-138.

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1626 **Vermij, Rienk H.** Secularisering en natuurwetenschap in de zeventiende en achttiende eeuw: Bernard Nieuwentijt. (Nieuwe Nederlandse bijdragen tot de geschiedenis der geneeskunde en der natuurwetenschappen, 38.) 173 pp., notes, bibl., index. Amsterdam: Rodopi, 1991.

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1633 **Baldini, Ugo; Napolitani, Pier Daniele.** Per una biografia di Luca Valerio: Fonti edite e inedite per una ricostruzione della sua carriera scientifica. *Boll. Stor. Sci. Mat.*, 1991, 11(1): 3-157.

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1648 **Krayer, Albert.** Mathematik im Studienplan der Jesuiten: Die Vorlesung von Otto Cattenius an der Universität Mainz (1610-11). (Beiträge zur Geschichte der Universität Mainz, 15.) ix + 434 pp., notes, bibl., index. Stuttgart: Steiner, 1991.

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"The aim of this paper is to show that the *Quaestio de certitudine mathematicarum* had a diffusion which reached, geographically, as far as England and Poland and chronologically as far as the 1670s. I will analyse the contributions to the *Quaestio* by Smiglecius, Wallis, Hobbes, Barrow and Gassendi. It is my claim that the material I present gives an unequivocally positive answer to the problem of continuity raised in Jardine's article: great portions of the epistemological, and more generally philosophical, reflection on mathematics in the 17th century cannot be understood without referring back to the Renaissance debates on the *Quaestio*."

1652 **Mancosu, Paolo.** Descartes's *Géométrie* and revolutions in mathematics. Pp. 83-116 in Donald Gillies (ed.) *Revolutions in mathematics*. Oxford: Clarendon Press, 1992.

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1659 **Peiffer, Jeanne.** Pierre Varignon, lecteur de Leibniz et de Newton. Pp. 244-266 in Ingrid Marchlewitz, Albert Heinekamp (eds.) *Leibniz' Auseinandersetzung mit Vorgängern und Zeitgenossen.* Stuttgart: Steiner, 1990.
"Je me propose d'étudier, dans cette contribution, la manière dont la familiarité de Varignon avec à la fois l'approche leibnizienne et la démarche newtonienne en analyse infinitésimale a marqué sa propre conception des notions fondamentales de cette analyse."

1660 **Thirouin, Laurent.** Le hasard et les règles: Le modèle du jeu dans la pensée de Pascal. Préface de Jean Mesnard. (Bibliothèque d'histoire de la philosophie.) 222 pp., notes, bibl. Paris: Vrin, 1991.

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37.1c. Physical sciences *(astronomy, physics, chemistry)*

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1663 **Andersson, Gunnar.** The tower experiment and the Copernican revolution. *Int. Stud. Phil. Sci.,* 1991, 5: 143-152.
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1664 **Aoki, Shinko.** The moon-test in Newton's *Principia*: Accuracy of inverse-square law of universal gravitaion. *Arch. Hist. Exact Sci.,* 1992, 44: 147-190.

1665 **Baffetti, Giovanni.** Il *Sidereus nuncius* a Bologna. *Intersezioni,* 1991, 11: 477-500.
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1666 **Barthélémy, Georges.** Newton, mécanicien du cosmos. (Mathesis.) 212 pp., notes, bibl. Paris: Vrin, 1992.

1667 **Bartholin, Erasmus.** Experiments on birefringent Icelandic crystal. Translated by Thomas Archibald. Introduction by Jed Z. Buchwald and Kurt Møller Pedersen. With a facsimile of the original publication 1669. (Acta historica scientiarum naturalium et medicinalium, 40.) 63 + 60 pp. Copenhagen: Danish National Library of Science and Medicine, 1991.

1668 **Baumgartner, Frederic J.** The origins of the Provençal school of astronomy. *Physis,* 1991, 28: 291-304.
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1669 **Bertoloni Meli, D.** Public claims, private worries: Newton's *Principia* and Leibniz's theory of planetary motion. *Stud. Hist. Phil. Sci.,* 1991, 22: 415-449.
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1671 **Biagioli, Mario.** New documents on Galileo. *Nuncius,* 1991, 6(2): 157-169.

1672 **Bodeüs, Richard.** Leibniz, Jean de Raey, et la physique reformée. *Stud. Leibnitiana,* 1991, 23: 103-110.

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1674 **Cavaillé, Jean-Pierre.** Descartes: La fable du monde. (Contextes.) 352 pp., illus., notes, bibl., index. Paris: Vrin, Éditions de l'École des Hautes Études en Sciences Sociales, 1991.

1675 **Chapman, Allan.** "A world in the moon": John Wilkins and his lunar voyage of 1640. *Quart. J. Roy. Astron. Soc.,* 1991, 32: 121-132.

1676 **Cimino, Massimo.** La cosmologia cometaria di Halley e i *Principia* di Newton. *Cult. Scu.,* 1991, 30(117): 241-253.

1677 **Clucas, Stephen.** Poetic atomism in 17th-century England: Henry More, Thomas Traherne, and "scientific imagination". *Renaiss. Stud.,* 1991, 5: 327-340.

1678 **Comets** and the rise of modern science: An exhibition. Special collections, Harold B. Lee Library, Brigham Young University, May 1–November 1, 1986. [Edited by A. Dean Larsen]. 38 pp., illus. Provo, Utah: Friends of the Brigham Young University Library, 1986.

1679 **Cook, Alan.** Edmond Halley and Newton's *Principia. Notes Rec. Roy. Soc. Lond.,* 1991, 45: 129-138.
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1681 **Cunningham, Andrew.** How the *Principia* got its name; Or, taking natural philosophy seriously. *Hist. Sci.*, 1991, 29: 377-392.

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1682 **Damerow, Peter; Freudenthal, Gideon; McLaughlin, Peter; Renn, Jürgen.** Exploring the limits of preclassical mechanics: A study of conceptual development in early modern science: Free fall and compounded motion in the work of Descartes, Galileo and Beeckman. xiii + 387 pp., illus., notes, bibl., index. New York: Springer-Verlag, 1992.

1683 **Davis, Edward B.** Newton's rejection of the "Newtonian world view": The role of divine will in Newton's natural philosophy. *Sci. Christ. Belief*, 1991, 3: 103-117.

1684 **Debus, Allen G.** The French Paracelsians: The chemical challenge to medical and scientific tradition in early modern France. xvi + 247 pp., illus., notes, bibl., index. Cambridge: Cambridge Univ. Press, 1991.

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1686 **Downing, Lisa.** Are corpuscles unobservable in principle for Locke? *J. Hist. Phil.*, 1992, 30: 33-52.

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1688 **Erlichson, Herman.** The instantaneous impulse construction as a formula for central force motion on an arbitrary plane curve with respect to an arbitrary force centre in the plane of that curve. *Ann. Sci.*, 1992, 49: 369-375.

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1691 **Erlichson, Herman.** Newton's first inverse solutions. *Centaurus*, 1991, 34: 345-366.

1692 **Esteban Piñeiro, Mariano; Gómez Crespo, Félix.** La primera versión castellana de *De revolutionibus orbium caelestium*: Juan Cedillo Díaz (1620-1625). *Asclepio*, 1991, 43(1): 131-162.

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1693 **Fabrikant, V.A.** How the concept of acceleration took shape in the mechanics of Galileo. *Soviet Phys. Usp.*, 1991, 34: 201.

1694 **Fischer, Klaus.** Die Wissenschaftstheorie Galileis–oder: Contra Feyerabend. *Z. Allg. Wissenschaftstheor.*, 1992, 23: 165-197.

1695 **Fouke, Daniel.** Leibniz's opposition to Cartesian bodies during the Paris period (1672-1676). *Stud. Leibnitiana*, 1991, 23: 195-206.

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Contents: PAOLO GALLUZZI: La fondazione galileiana della moderna scienza del movimento: Una vicenda esemplare. LEONIDA ROSINO: Il cielo prima e dopo Galileo. ANTONIO PORTA: Passione e lavoro di pensata esperienza. GIANNI MICHELI: L'idea di Galileo nella cultura italiana dal XVI al XIX secolo. VITE DI GALILEO, a cura di Gianni Micheli: (1): Racconto istorico della vita di Galileo, di Vincenzo Viviani; (2): Saggio sul Galileo, di Paolo Frisi; (3): Galileo, Bacone e il metodo sperimentale, di Pasquale Villari; (4): Storia del metodo sperimentale, di Raffaele Caverni; (5): Galileo Galilei, di Antonio Favaro. GIORGIO TABORELLI: Cronica galileiana.

1698 **Gapaillard, Jacques.** Galilée et l'expérience de Locher. *Sci. Tech. Persp.*, 1990/91, 19: 1-10.

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1699 **Garber, Daniel.** Descartes' metaphysical physics. (Science and its conceptual foundations.) xiv + 389 pp., notes, bibl., index. Chicago: Univ. of Chicago Press, 1992.

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1703 **Helden, Anne C. van.** The age of the air-pump. *Tractrix*, 1991, 3: 149-172.

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1705 **Hunter, Michael.** Letters and papers of Robert Boyle: A guide to the manuscripts and microfilm. Introduction written and guide compiled by Michael Hunter. Project editor, Paul Kesaris. Editorial assistant, James P. Hoy. (Collections from the Royal Society.) xlix + 90 pp. Bethesda, MD.: University Publications of America, 1992.

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1707 **Jardine, Nicholas.** Demonstration, dialectic, and rhetoric in Galileo's *Dialogue*. Pp. 101-121 in Donald R. Kelley, Richard H. Popkin (eds.) *The shapes of knowledge from the Renaissance to the Enlightenment*. Dordrecht: Kluwer Academic. 1991.

1708 **Kirsanov, V.S.** The earliest copy in Russia of Newton's *Principia*: Is it David Gregory's annotated copy? *Notes Rec. Roy. Soc. Lond.*, 1992, 46: 203-218.

1709 **Kochar, R.K.** Transit of Mercury 1651: The earliest telescopic observation in India. *Indian J. Hist. Sci.*, 1989, 24: 186-192.

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1710 **Kollerstrom, N.** The hollow world of Edmond Halley. *J. Hist. Astron.*, 1992, 23: 185-192.

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1711 **Legrand, Jean-Pierre; Le Goff, Maxime; Mazaudier, Christian; Schröder, Wilfried.** L'activité solaire et l'activité aurorale au XVIIe siècle. *Vie Sci.*, 1991, 8: 181-219.

1712 **Leinkauf, Thomas.** Die *Centrosophia* des Athanasius Kircher SJ: Geometrisches Paradigma und geozentrisches Interesse. *Ber. Wissenschaftsgesch.*, 1991, 14: 217-229.

1713 **Ludwig, Bernd.** What is Newton's law of inertia about? Philosophical reasoning and explanation in Newton's *Principia*. *Sci. Context*, 1992, 5: 139-163.

1714 **Mason, Stephen F.** Hooke redivived. *Notes Rec. Roy. Soc. Lond.*, 1991, 45: 257-261.

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1715 **McIlroy, Brian.** Reconstructing artistic and scientific paradigms: John Banville's *The Newton letter*. *Mosaic*, 1992, 25(1): 121-133.

1716 **Mills, Allan A.** Isaac Newton's sundials. *Antiq. Horology*, 1992, 20: 126-139.

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1718 **Moss, Jean Dietz.** The interplay of science and rhetoric in 17th century Italy. *Rhetorica*, 1989, 7: 23-43.

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1719 **Moulines, C. Ulises.** Die Entstehung und Struktur der Axiomatisierung der Mechanik durch I. Newton. Pp. 47-74 in Hans Poser, Clemens Burrichter (eds.) *Die geschichtliche Perspektive in den Disziplinen der Wissenschaftsforschung*. Berlin: Technische Universität, 1988.

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1721 **O'Sullivan, Colm T.** Newton's law of cooling–A critical assessment. *Amer. J. Phys.*, 1990, 58: 956-960.

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1722 **Pedersen, Olaf.** Galileo and the Council of Trent. New edition. (Vatican Observatory publications, Studi Galileiani, vol. 1, no. 6.) 43 pp., notes. Città del Vaticano: Specola Vaticana, 1991.

1723 **Peterfreund, Stuart.** Saving the phenomenon or saving the Hexameron?: Mosaic self-presentation in Newtonian optics. *Eighteenth Cent. Theory Interpr.*, 1991, 32: 138-165.

1724 **Pitt, Joseph C.** Galileo, human knowledge, and the book of nature: Method replaces metaphysics. (The University of Western Ontario series in the philosophy of science, 50.) xvi + 201 pp., notes, bibl., index. Dordrecht: Kluwer Academic, 1992.

1725 **Pitt, Joseph.** The heavens and the earth: Bellarmine and Galileo. Pp. 131-142 in Peter Barker, Roger Ariew (eds.) *Revolution and continuity: Essays in the history and philosophy of early modern science.* Washington, D.C.: Catholic Univ. of America Press, 1991.

1726 **Ponce Aberca, Carmen.** Introducción a la filosofía del espacio y del tiempo en Newton. (Filosofía y letras, 100.) 97 pp., notes, bibl. Sevilla: Univ. de Sevilla, 1987.

1727 **Pourciau, Bruce.** Newton's solution of the one-body problem. *Arch. Hist. Exact Sci.*, 1992, 44: 125-146.

1728 **Prizhiznennye** portrety Galileia. (Portraits of Galileo during his lifetime). *Vop. Ist. Est. Tekh.*, 1992(2): 109-117.

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1730 **Rowlands, Peter.** Newton and the concept of mass-energy. (Liverpool historical essays, 4.) ii + 34 pp., notes. Liverpool: Liverpool Univ. Press for the Dept. of History, Univ. of Liverpool, 1990.

1731 **Seck, Friedrich.** Über den Briefwechsel von Keplers Freund Wilhelm Schickard. Pp. 49-57 in Volker Bialas (ed.) *Naturgesetzlichkeit und Kosmologie in der Geschichte.* Stuttgart: Steiner, 1992.

1732 **Segre, Michael.** In the wake of Galileo. xix + 192 pp., notes, bibl., index. New Brunswick, N.J.: Rutgers Univ. Press, 1991.

1733 **Shapiro, Alan E.** Comment on "Newton's zero-order rainbow: Unobservable or nonexistent?" by C.F. Bohren and A.B. Fraser. *Amer. J. Phys.*, 1992, 60: 749-750.

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1734 **Simpson, A.D.C.** James Gregory and the reflecting telescope. *J. Hist. Astron.*, 1992, 23: 77-92.

1735 **Spini, Giorgio.** Barocco e puritani: Studi sulla storia del Seicento in Italia, Spagna e New England. 433 pp., notes. Firenze: Vallecchi, 1991.

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1736 **Stein, Howard.** "From the phenomena of motions to the forces of nature": Hypothesis or deduction? *PSA*, 1990(2): 209-222.

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1737 **Steinle, Friedrich.** Was ist Masse? Newtons Begriff der Materiemenge. *Phil. Natur.*, 1992, 29: 94-117.

1738 **Weinstock, Robert.** Newton's *Principia* and inverse-square orbit: The flaw reexamined. *Hist. Math.*, 1992, 19: 60-70.

1739 **Weinstock, Robert.** Problem in two unknowns: Robert Hooke and a worm in Newton's apple. *Phys. Teacher*, 1992, 30: 282-288.

1740 **Winkler, Mary G.; Van Helden, Albert.** Representing the heavens: Galileo and visual astronomy. *Isis*, 1992, 83: 195-217.

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1741 **Yoder, Joella.** Christiaan Huygens' great treasure. *Tractrix*, 1991, 3: 1-13.

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1742 **Ziggelaar, August.** Did the Jesuits denounce Galileo? *Centaurus*, 1990, 33: 373-377.

Essay review of Pietro Redondi, *Galileo heretic* (1987).

37.1d. Earth sciences *(geology and geophysics; geography, cartography, and geodesy; oceanography; travel, exploration, and navigation; paleontology; mineralogy and crystallography; meteorology)*

1743 **Ariew, Roger.** A new science of geology in the 17th century? Pp. 81-92 in Peter Barker, Roger Ariew (eds.) *Revolution and continuity: Essays in the history and philosophy of early modern science.* Washington, D.C.: Catholic Univ. of America Press, 1991.

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1744 **Barber, Peter.** Necessary and ornamental: Map use in England under the later Stuarts, 1660-1714. *Eighteenth Cent. Life*, 1990, 14(3): 1-28.

1745 **Bianchi, Lorenzo.** Tra informazione scientifica e critica storica: Il *Discours* sul Vesuvio di G. Naudé. *G. Crit. Fil. Ital.*, 1987, 6 ser., 7: 459-498.

1746 **Cormack, Lesley B.** "Good fences make good neighbors": Geography as self-definition in early modern England. *Isis*, 1991, 82: 639-661.

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1747 **Cormack, Lesley B.** *Non sufficit orbem*: Geography as an interactive science at Oxford and Cambridge, 1580-1620. *Diss. Abstr. Int.*, 1992, 52: 3841-A.

Dissertation at Univ. of Toronto (Canada), 1988. Co-Supervisors: B.S. Hall; J.K. McConica. Univ. Microfilms order no. DANN 59954. 457 pp.

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37.1e. Biological sciences *(zoology, botany, anatomy, physiology, physical anthropology; also applied biology, including certain aspects of agriculture, such as plant and animal breeding, economic entomology, etc.)*

1749 **Boeseman, M.; Holthuis, L.B.; Hoogmoed, M.S.; Smeenk, C.** Seventeenth century drawings of Brazilian animals in Leningrad. (Zoologische verhandelingen, 267.) 189 pp., illus., notes, bibl. Leiden: Nationaal Natuurhistorisch Museum, 1990.

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1751 **Hoerner, Wilhelm.** Der Schmetterling: Metamorphose und Urbild. Eine naturkundliche Studie mit einer Lebensbeschreibung und Bildern aus dem Werk der Maria Sibylla Merian. 429 pp., illus., bibl., index. Stuttgart: Urachhaus, 1991.

1752 **Holthuis, L.B.** Marcgraf's (1648) Brazilian crustacea. (Zoologische verhandelingen, 268.) 123 pp., plates, bibl. Leiden: Nationaal Natuurhistorisch Museum, 1991.

1753 **Lister, Martin.** Martin Lister's English spiders, 1678. Translated from the original Latin by Malcolm Davies and Basil Harley. Edited with an introduction and notes by John Parker and Basil Harley. xv + 208 pp., illus., notes, index. Colchester, Eng.: Harley Books, 1992.

1754 **Merian, Maria Sibylla.** Das Insektenbuch: Metamorphosis Insectorum Surinamensium. [Begleittext von Helmut Deckert Übertragung des niederländischen Textes von Gerhard Worgt unter fachwissenschaftlicher Beratung von Hans-Joachim Hannemann]. 164 pp., illus., notes. Frankfurt am Main: Insel Verlag, 1991.

1755 **Merian, Matthäus.** Bildvorlagenatlas: Welt der Tiere. 2859 historische Vorlagen von Vierfüssern, Vögeln, Fischen, Niederen Tieren, Insekten, Schlangen und Drachen. Augsburg: Augustus Verlag, 1990.

Seventeenth-century engravings from the works of several naturalists, but especially John Jonston.

1756 **Mukerji, Chandra.** Reading and writing with nature: Social claims and the French formal garden. *Theory Soc.*, 1990, 19: 651-679.

"In this article, I use garden history to look at how material culture was used at court for creating, declaring, and reading claims about social station. I try to show how the development of new garden designs and the cultivation of imported plants was made possible by the growth of capitalist trade, trade in plants themselves, and also by the publication of books on horticulture that spread gardening practice. In these ways, gardens that were designed to symbolize high station through material means ended up being places in which capitalist enterprise penetrated court life."

1757 **Mulligan, Lotte.** Robert Hooke's "Memoranda": Memory and natural history. *Ann. Sci.*, 1992, 49: 47-61.

"The organ of the memory was of crucial importance for Robert Hooke in his aim to improve natural history and the study of nature in general . . . The close connection he made between a better memory mechanism and the task of 'perfecting' the study of natural philosophy can be seen in a whole range of his activities. . . His diary, by acting as a stimulant to memory, should be seen as an integral part of his attempt to become a better natural philosopher." From the summary.

1758 **Newton** e i fenomeni della vita. 1: Nota introduttiva di Maurizio Mamiani. 2: Il *De motu et sensatione animalium* e il *De vita & morte vegetabili* di Newton. Edizione e commento di Emanuela Trucco. *Nuncius*, 1991, 6(1): 69-96.

1759 **Nicolson, Dan H.; Suresh, C.R.; Manilal, K.S.** An interpretation of Van Rheede's *Hortus Malabaricus*. (Regnum vegetabile, 119.) 378 pp., bibl., index. Konigstein: Koeltz, 1988.

1760 **Ovenell, R.F.** The Tradescant dodo. *Arch. Natur. Hist.*, 1992, 19: 145-152.

On the fate of the dodo in John Tradescant's museum.

1761 **Rees, Graham.** Bacon's *Sylva Sylvarum*: Prelude to remarks on the influence of the *Magia naturalis*. Pp. 261-272 in *Giovan Battista Della Porta nel'Europa del suo tempo*. Napoli: Guida, 1990.

1762 **Ruestow, Edward G.** Of a man and his microscopes: Widening the perspective on early modern science. *Tractrix*, 1991, 3: 173-182.

Essay review of *Alle de brieven van Antoni van Leeuwenhoek/The collected letters of Antoni van Leeuwenhoek* (1939-).

1763 **Rupp, Jan C.C.** Michael Foucault, body politics and the rise and expansion of modern anatomy. *J. Historic. Sociol.*, 1992, 5: 31-60.

Explores Foucault's thesis that the study of anatomy in the early modern period was not hindered by religious and moral considerations but by an antagonism between two medical discourses, the clinical (life) and the anatomical (death).

1764 **Russell, Kenneth F.** A bibliography of Johann Remmelin, the anatomist. xviii + 124 pp., illus., notes, index. East St. Kilda, Vic.: J.F. Russell, 1991.

1765 **Salman, Phillips.** William Harvey and art misplaced. *Ann. Sci.*, 1992, 49: 3-19.

"William Harvey's *De generatione* uses a quotation from Seneca's *Epistula* 58 together with material from Aristotle to oppose the cognitive processes and methods of the artist to those Harvey wishes to require for the anatomist. This paper studies ways in which Harvey, as a deliberate writer, makes rhetorical uses of that opposition to expose false anatomists as those who rely on books rather than on observation and who promulgate sciolist fictions." From the summary.

37.1f. Social sciences *(psychology, cultural anthropology, sociology, economics)*

1766 **Almond, Philip C.** The journey of the soul in 17th-century English Platonism. *Hist. Eur. Ideas*, 1991, 13: 775-791.

1767 **Bonicalzi, Francesca.** Passioni della scienza: Descartes e la nascita della psicologia. 137 pp., notes. Milano: Jaca Book, 1990.

1768 **Buroker, Jill Vance.** Descartes on sensible qualities. *J. Hist. Phil.*, 1991, 29: 585-611.

1769 **Della Rocca, Michael A.** Representation and the mind-body problem in Spinoza. *Diss. Abstr. Int.*, 1992, 52: 2949-A.

Dissertation at Univ. of California, Berkeley, 1991. Chair: Wallace Matson. Univ. Microfilms order no. 92-03545. 385 pp.

1770 **Johnstone, Albert A.** The bodily nature of the self or what Descartes should have conceded Princess Elizabeth of Bohemia. Pp. 16-47 in Maxine Sheets-Johnstone (ed.) *Giving the body its due.* Albany: State Univ. of New York Press, 1992.

1771 **Kreager, Philip.** Early modern population theory: A reassessment. *Popul. Devel. Rev.*, 1991, 17: 207-227.

1772 **Kulstad, Mark.** Leibniz on apperception, consciousness, and reflection. (Analytica: Investigations in logic, ontology, and the philosophy of language.) 183 pp., notes, bibl., index. München: Philosophia, 1991.

1773 **Lievers, Menno.** The Molyneux problem. *J. Hist. Phil.*, 1992, 30: 399-416.

Argues that the Molyneux problem "must be seen first and foremost within the context of the problem of the visual perception of depth." Discusses Locke's and Berkeley's treatment of the problem.

1774 **McGrew, Timothy.** Unraveling innate ideas. *Hist. Phil. Quart.*, 1992, 9: 307-317.

On Locke's objections to Descartes's advocacy of innate ideas.

1775 **Osmond, Rosalie.** Mutual accusation: Seventeenth-century body and soul dialogues in their literary and theological context. xiii + 284 pp., illus., notes, bibl., index. Toronto: Univ. of Toronto Press, 1990.

1776 **Rice, Lee C.** Tanquam naturae humanae exemplar: Spinoza on human nature. *Mod. Schoolman*, 1991, 68: 291-303.

1777 **Schmaltz, Tad M.** Descartes and Malebranche on mind and mind-body union. *Phil. Rev.*, 1992, 101: 281-325.

1778 **Seager, William.** The worm in the cheese: Leibniz, consciousness, and matter. *Stud. Leibnitiana*, 1991, 23: 79-91.

1779 **Tonelli Olivieri, Grazia.** Galen and Francis Bacon: Faculties of the soul and the classification of knowledge. Pp. 61-81 in Donald R. Kelly, Richard H. Popkin (eds.) *The shapes of knowledge from the Renaissance to the Enlightenment.* Dordrecht: Kluwer Academic, 1991.

37.1g. Medicine and medical sciences

1780 **Bauer, Axel.** Georg Franck von Franckenau: Repräsentant einer empirischen Heilkunde im Zeitalter des Barock. Pp. 440-462 in Wilhelm Doerr (ed.) *Semper apertus: Sechshundert Jahre Ruprecht-Karls-Universität Heidelberg 1386-1986.* Band 1. Belin: Springer-Verlag, 1985.

1781 **Benzenhöfer, Udo; Kühlmann, Wilhelm (eds.)** Heilkunde und Krankheitserfahrung in der frühen Neuzeit: Studien am Grenzrain von Literaturgeschichte und Medizingeschichte. (Frühe Neuzeit: Studien und Dokumente zur deutschen Literatur und Kultur im europäischen Kontext, 10.) viii + 336 pp., notes, index. Tübingen: Niemeyer, 1992.

Contents: WILHELM KÜHLMANN: Selbstverständigung im Leiden: Zur Bewältigung von Krankheitserfahrungen im versgebundenen Schrifttum der Frühen Neuzeit (P. Lotichius Secundus, Nathan Chytraeus, Andreas Gryphius). DIETRICH VON ENGELHARDT: Systematische Überlegungen zum Verhältnis von Medizin und Literatur im Zeitalter des Barock. JÖRG JOCHEN

BERNS: Utopie und Medizin: Der Staat der Gesunden und der gesunde Staat in utopischen Entwürfen des 16. und 17. Jahrhunderts. WOLFGANG NEUBER: Der Arzt und das Reisen: Zum Anleitungsverhältnis von Regimen und Apodemik in der frühneuzeitlichen Reisetheorie. WOLFGANG U. ECKART: Anmerkungen zur "Medicus Politicus"- und "Machiavellus Medicus"-Literatur des 17. und 18. Jahrhunderts. BARBARA ELKELES: Arzt und Patient in der medizinischen Standesliteratur der Frühen Neuzeit. JÜRGEN KONERT: Der wundärztliche Werbetext am Beispiel der Werbezettel des Johann Andreas Eisenbarth. KATRIN KRÖLL: "Kurier die Leut auf meine Art . . .": Jahrmarktskünste und Medizin auf den Messen des 16. und 17. Jahrhunderts. ACHIM AURNHAMMER: Pathographie des Poeten: Zur Bedeutung von Leiden und Melancholie für das frühe Tasso-Bild. THOMAS RAHN: Affektpathologische Aspekte und therapeutische Handlungszitate in Lohensteins *Agrippina*. IRMTRAUT SAHMLAND: Beschreibung und Bewertung von Krankheit in der Predigtliteratur des 16. und 17. Jahrhunderts am Beispiel der Bergpredigten. HERMANN WIEGAND: "Ad vestras, medici, supplex prosternitur aras . . .": Zu Jacob Baldes Medizinersatiren. WOLFRAM SCHMITT: Die Darstellung der Geisteskrankheit in der Barockliteratur. UDO BENZENHÖFER: Die medizinisch-politischen Lehrromane des Dichterarztes Johann Christoph Ettner (1654-1724). WOLFRAM MAUSER: Die "Balsam=Kraft" von innen: Dichtung und Diätetik am Beispiel des B.H. Brockes.

1782 **Cipolla, Carlo M.** Miasmas and disease: Public health and the environment in the pre-industrial age. Translated by Elizabeth Potter. ix + 101 pp., notes, glossary, index. New Haven: Yale Univ. Press, 1992.

In 17th-century Italy.

1783 **Cook, Harold.** Physick and natural history in 17th-century England. Pp. 63-80 in Peter Barker, Roger Ariew (eds.) *Revolution and continuity: Essays in the history and philosophy of early modern science.* Washington, D.C.: Catholic Univ. of America Press, 1991.

On physicians's reactions to the new philosophy.

1784 **Eisinger, Josef.** Early consumer protection legislation: A 17th century law prohibiting lead adulteration of wines. *Interdis. Sci. Rev.*, 1991, 16: 61-68.

Presents a translation and facsimile of the 1693 edict of the Duke of Württemberg against adulterating wines with lead.

1785 **Evenden-Nagy, Doreen.** Seventeenth century London midwives: Their training, licensing and social profile. *Diss. Abstr. Int.*, 1992, 53: 275-A.

Dissertation at McMaster Univ. (Canada), 1991. Supervisor: J.D. Alsop. Univ. Microfilms order no. DANN 65722. 462 pp.

1786 **Gelis, Jacques.** History of childbirth: Fertility, pregnancy, and birth in early modern Europe. Translated by Rosemary Morris. xvii + 326 pp., illus., notes, index. Boston: Northeastern Univ. Press, 1991.

1787 **Gevitz, Norman.** Samuel Fuller of Plymouth Plantation: A "skillfull physician" or "quacksalver"? *J. Hist. Med.*, 1992, 47: 29-48.

1788 **Hamburger, Jean.** The diary of William Harvey: The imaginary journal of the physician who revolutionized medicine. Translated by Barbara Wright. xii + 255 pp., notes. New Brunswick, N.J.: Rutgers Univ. Press, 1992.

1789 **Hanafi, Zakiya Asha Jenan.** Matter, machines, and metaphor: Monstrosity in the *seicento*. *Diss. Abstr. Int.*, 1992, 52: 3304-A.

Dissertation at Stanford Univ., 1991. Adviser: Jeffrey Schnapp. Univ. Microfilms order no. 92-06777. 245 pp. On theories of monstrosity in 17th-century Italy.

1790 **Healy, Thomas.** Sound physic: Phineas Fletcher's *The purple island* and the poetry of purgation. *Renaiss. Stud.*, 1991, 5: 341-352.

Fletcher's poem (1633) "represents a culmination of one important facet of how scientific ideas and methods were involved with Renaissance English poetry, that of correspondence."

1791 **Hughes, J. Trevor.** Thomas Willis, 1621-1675: His life and work. (Eponymists in medicine.) xvi + 151 pp., illus., notes, bibl., index. London: Royal Society of Medicine Services, 1991.

1792 **Konkola, Kari.** More than a coincidence? The arrival of arsenic and the disappearance of plague in early modern Europe. *J. Hist. Med.*, 1992, 47: 186-209.

Attempts to explain the fact that the epidemics of plague ended in western Europe in the second half of the 17th century while continuing for two more centuries elsewhere.

1793 **Leibrock-Plehn, Larissa.** Hexenkräuter oder Arznei: Die Abtreibungsmittel im 16. und 17. Jahrhundert. Mit einem Geleitwort von Rudolf Schmitz. (Heidelberger Schriften zur Pharmazie- und Naturwissenschaftsgeschichte, 6.) 238 pp., notes, glossary, bibl., index. Stuttgart: Wissenschaftliche Verlagsgesellschaft, 1992.

1794 **Leiby, John S.** San Hipólito's treatment of the mentally ill in Mexico City, 1589-1650. *Historian*, 1992, 54: 491-498.

On the asylum of San Hipólito, the first asylum in the Western Hemisphere for the mentally ill.

1795 **Mauriello, Anthony, Jr.; Prioreschi, Plinio; Friedlander, Walter J.** Was William Harvey's coat of arms at Padua an early example of the medical use of the caduceus? *J. Hist. Med.*, 1992, 47: 212-214.

1796 **Medicina e magia:** Segreti e rimedi in due manoscritti salernitani del '700. Introduzione e note di Roberto Marino. (Historia, 6.) 146 pp., notes, glossary. Roma: Bulzoni, 1991.

1797 **Müller, Ingo W.** Der Hippokratismus des Giorgio Baglivi. *Medizinhist. J.*, 1991, 26: 300-314.

1798 **Nance, Brian K.** Learned medicine and court society in Jacobean England: The medical practice of Theodore Turquet de Mayerne, 1611-1624. *Diss. Abstr. Int.*, 1992, 53: 276-A.

Dissertation at Univ. of North Caroline at Chapel Hill, 1991. Director: Michael R. McVaugh. Univ. Microfilms order no. 92-16758. 335 pp.

1799 **Pastore, Alessandro.** Peste, epidemie e strutture sanitarie. Pp. 63-84 in Nicola Tranfaglia, Massimo Firpo (eds.) *La storia: I grandi problemi dal Medioevo all'Età Contemporanea.* Vol. 3. Torino: UTET, 1987.

In the 16th and 17th centuries.

1800 **Porter, Roy.** La rivoluzione scientifica ha prodotto una rivoluzione medica? *Intersezioni*, 1992, 12: 87-103.

1801 **Stigler, Stephen M.** Apollo Mathematicus: A story of resistance to quantification in the 17th century. *Proc. Amer. Phil. Soc.*, 1992, 136: 93-126.

On an attack on the mathematical medicine of Archibald Pitcairne in Edward Eizat's *Appolo Mathematicus: or the art of curing diseases by the mathematicks according to the principles of Dr. Pitcairn* (1695), and a response by one of Pitcairne's students, George Hepburn (at Pitcairne's instigation) *Tarrugo unmasked, or an answer to a late pamphlet intituled, Apollo Mathematicus* (1695).

1802 **Teuber, Christian.** "Medicus Silesiacus" Martin Pansa (1580-1626): Sozialmediziner und Volksaufklärer Ostdeutschlands: Sein Leben, sein Werk als Beitrag zur spätmittelalterlich-frühneuzeitlichen "Medizin für den gemeinen Mann". (Würzburger medizinhistorische Forschungen, 50.) 298 pp. Pattensen: Wellm, 1991.

1803 **Thulesius, Olav.** Nicholas Culpeper: English physician and astrologer. xi + 210 pp., illus., notes, bibl., index. Houndsmill, Eng.: Macmillan; New York: St. Martin's Press, 1992.

1804 **Vollmuth, Ralf.** Die sanitätsdienstliche Versorgung in den Landsknechtsheeren des ausgehenden Mittelalters und der frühen Neuzeit: Probleme und Lösungsansätze. (Würzburger medzinhistorische Forschungen, 51.) 309 pp., notes, bibl., index. Würzburg: Königshausen & Neumann, 1991.

37.1h. Technology *(includes engineering, mining, mechanical inventions, horology, arts and crafts, military technology, agricultural technology)*

1805 **Aked, Charles K.** Perrault's hydraulic clock. *Antiq. Horology*, 1992, 20: 161-168.

1806 **Buckland, J.S.P.** Technical notes on 16th and 17th century London windmills. *Trans. Newcomen Soc.*, 1988/89 (pub. 1991), 60: 127-136.

1807 **Clercq, Peter de.** Exporting scientific instruments around 1700: The Musschenbroek documents in Marburg. *Tractrix*, 1991, 3: 79-120.

"Between 1694 and 1703, the Leiden instrument maker Johan Joosten van Musschenbroek sold some sixty physical, optical, anatomical and medical instruments to professor Johann Daniel Dorstenius at Marburg University, Germany. Dorstenius bought these on his own initiative and out of his own pocket. With his lectures he introduced experimental physics to Marburg. The instruments themselves have been lost, but the documents received by Dorstenius survive. This article serves to present and discuss these previously unpublished documents, which include letters, invoices, instructions for use and the earliest instrument-makers' trade catalogue. These documents contain unique information on the repertoire and the business organization of the Musschenbroek workshop with its close connections with the progressive University of Leiden."

1808 **Giesecke, Michael.** Der Buchdruck in der frühen Neuzeit: Eine historische Fallstudie über die Durchsetzung neuer Informations- und Kommunikationstechnologien. 944 pp., illus., notes, bibl., index. Frankfurt am Main: Suhrkamp, 1991.

1809 **Goercke, Ernst.** Der Schliff asphärischer Linsen nach Angaben des Rheita. *Technikgeschichte*, 1991, 58: 179-187.

On the making of aspherically ground lenses as proposed by Rheita in his 1645 book *Oculus Enoch.*

1810 **Iliffe, Rob.** "In the warehouse": Privacy, property and priority in the early Royal Society. *Hist. Sci.*, 1992, 30: 29-68.

"In this paper, I reexamine a particular (and well-known) episode in the history of intellectual property disputes, namely the controversy between Robert Hooke and Christiaan Huygens over the invention of the balance-spring watch in 1675. At issue was the problem of whether the Royal Society was competent to act as an arbiter in something that concerned a man's *trade.*"

1811 **Pollak, Martha D.** Military architecture, cartography, and the representation of the early modern european city: A checklist of treatises on fortification in the Newberry Library. xxxvi + 119 pp., illus. Chicago: Newberry Library, 1991.

1812 **Pujo, Bernard.** Vauban. 374 pp., illus., notes, glossary, index. Paris: Michel, 1991.

1813 **Turner, A.J.** Melchisédech Thévenot, the bubbel level, and the artificial horizon. *Nuncius*, 1992, 7(1): 131-145.

On the context in which Thévenot devised both these instruments, and the early stages of their development and use.

1814 **Wislicki, Alfred T.** Máquinas en la literature ténica polaca del siglo XVII. *Llull*, 1992, 15: 171-179.

A discussion of *Architekt Polski* (Warsaw, 1690) a Polish work on machines by Stanislaw Solski.

37.1i. Pseudo-sciences *(includes natural magic, witchcraft, divination, alchemy, and astrology)*

1815 **L'antimonio:** Cioè trattato delle maravigliose virtù dell'antimonio commune . . . Con le annotazioni del Signor Filostibio. Della edizione di Torino del 1628. A cura di Sergio Tira. (Biblioteca ermetica, 23.) 141 pp., glossary, bibl. Roma: Edizioni Meditteranee, 1991.

1816 **Battafarano, Italo Michele.** Spee–Harsdörffer–Knorr von Rosenroth: La ricezione di Giovan Battista Della Porta in Germania dalle polemiche demonologiche alla genesi del linguaggio scientifico tedesco. Pp. 311-336 in *Giovan Battista Della Porta nel'Europa del suo tempo.* Napoli: Guida, 1990.

1817 **Dobbs, Betty Jo Teeter.** The Janus face of genius: The role of alchemy in Newton's thought. xii + 359 pp., illus., notes, bibl., index. Cambridge: Cambridge Univ. Press, 1991.

1818 **Heidelberger, Michael.** Ein hermetisches Lehrbild. Pp. 54-64 in Henning Vierck (ed.) *Der Comenius-Garten: Eine Leseprobe aus dem Buch der Natur.* Berlin: Hentrich, 1992.

Historical, scientific, and philosophical context of the "Smaragdina hermetis tabula" of 1678, an engraving by Matthäus Merian.

1819 **Henningsen, Gustav.** The diffusion of magic in colonial America. Pp. 160-178 in Jens Christian V. Johansen (et al., eds.) *Clashes of cultures: Essays in honour of Niels Steensgaard.* Odense: Odense Univ. Press, 1992.

On the transfer of magical practices from Spain to Latin America in the 16th and 17th centuries.

1820 **Joly, Bernard.** La rationalité de l'alchimie au XVIIe siècle. Avec le texte latin, la traduction et le commentaire du *Manuscriptum ad Federicum* de Pierre-Jean Fabre. Préface de Jean-Paul Dumont. (Mathesis.) 408 pp., notes, bibl., index. Paris: Vrin, 1992.

1821 **Labouvie, Eva.** Zauberei und Hexenwerk: Ländlicher Hexenglaube in der frühen Neuzeit. 303 pp., illus., notes, bibl. Frankfurt am Main: Fischer Tachenbuch Verlag, 1991.

1822 **McKnight, Stephen A. (ed.)** Science, pseudo-science, and utopianism in early modern thought. xiii + 221 pp., illus., notes, bibl., index. Columbia: Univ. of Missouri Press, 1992.

Contents: ALLEN G. DEBUS: Science and history: The birth of a new field. ALLEN G. DEBUS: The Scientific Revolution: A chemist's reappraisal. BETTY JO TEETER DOBBS: Alchemical death and resurrection: The significance of alchemy in the age of Newton. STEPHEN A. McKNIGHT: Science, the *prisca theologia,* and modern epochal consciousness. KLAUS VONDUNG: Millenarianism, Hermeticism, and the search for a universal science. DAVID WALSH: A mythology of reason: The persistence of pseudo-science in the modern world. WILBUR APPLEBAUM: Epistemological and political implications of the Scientific Revolution.

1823 **Mendelsohn, J. Andrew.** Alchemy and politics in England, 1649-1665. *Past Present,* 1992, 135: 30-78.

1824 **Rummel, Walter.** Bauern, Herren und Hexen: Studien zur Sozialgeschichte sponheimischer und kurtrierischer Hexenprozesse, 1574-1664. (Kritische Studien zur Geschichtswissenschaft, 94.) 424 pp., notes, index. Göttingen: Vandenhoeck & Ruprecht, 1991.

1825 **Secret, François.** De quelques traités d'alchimie au temps de la régence de Marie de Médicis. *Chrysopoeia,* 1989, 3: 305-400.

Discusses a miscellany of seven alchemical tracts, six of which are dedicated to Marie de Medicis.

1826 **Sturlese, Rita.** Lazar Zetzner, "Bibliopola Argentinensis": Alchimie und Lullismus in Strassburg an den Anfängen der Moderne. *Sudhoffs Arch.,* 1991, 75: 140-162.

"Lazar Zetzner, einer der bedeutendsten deutschen Verleger der späten Renaissance, wirkte in Strassburg zwischen 1582 und 1616 und ist heute vor allen wegen seiner imposanten vierbändigen Textsammlung *Theatrum chemicum* bekannt."

1827 **Vasoli, Cesare.** Alchimia, magia, occultismo. Pp. 467-502 in Nicola Tranfaglia, Massimo Firpo (eds.) *La storia: I grandi problemi dal Medioevo all'Età Contemporanea.* Vol. 4. Torino: UTET, 1986.

37.1j. Ancillary disciplines *(archaeology, linguistics, etc.)*

37.2. EIGHTEENTH CENTURY

37.2a. General history; Philosophy

1828 **Abbri, Ferdinando.** Cultura scandinava e cultura toscana nel Settecento. *Boll. Fil.,* 1991, 9: 9-38.

Contacts between Scandinavian and Italian scientists. With an appendix of letters to and from Giovanni Fabbroni.

1829 **Albertan, C.; Chouillet, Anne-Marie.** Autographes et documents. *Rech. Diderot Encyclo.,* 1991, 11: 184-202.

Listing of archival materials relating to the *Encyclopédie.*

1830 **Alembert, Jean Le Rond d'** Essai sur les éléments de philosophie, ou Sur les principes des connaissances humaines. Texte revu par Catherine Kintzler. (Corpus des oeuvres de philosophie en langue française.) 362 pp., notes. Paris: Fayard, 1986.

1831 **Allan, D.G.C.; Abbott, John L. (eds.)** The virtuoso tribe of arts and sciences: Studies in the 18th-century work and membership of the London Society of Arts. xxvi + 447 pp., illus., notes, index. Athens: Univ. of Georgia Press, 1992.

Contents: JOHN L. ABBOTT: Dr. Johnson and the Society. D.G.C ALLAN, JOHN L. ABBOTT: "Compassion and horror in every humane mind": Samuel Johnson, the Society of Arts, and 18th-century prostitution. JOHN L. ABBOTT: Thomas Hollis and the Society, 1756-1774. J.V.G. MALLET: Nicholas Crisp, founding member of the Society of Arts. D.G.C. ALLAN: Caleb Whitefoord, FRS, FSA, 1734-1810: Committee Chairman and Vice President of the Society. D.G.C. ALLAN: Artists and the society in the 18th century. GERTRUD SEIDMANN: "A very ancient, useful and curious art": The Society and the revival of gem-engraving in 18th-century England. LEO J. DE FREITAS: The Society and wood engraving in the 18th century. J.B. HARLEY: The Society and the surveys of English counties, 1759-1809. WALTER M. STERN: The Society and the improvement of whaling. JOHN SUNDERLAND: Samuel Johnson and history painting. ROBERT LEROY HILLDRUP: A campaign to promote the prosperity of colonial Virginia. D.G.C. ALLAN: "The present unhappy disputes": The Society and the loss of the American colonies, 1774-1783. HANS-JOACHIM BRAUN: Some notes on the Germanic associations of the Society in the 18th century. GEORGE TRUETT HOLLIS: Count Francesco Algarotti and the Society. A.G. CROSS: Early contacts of the Society with Russia. JAMES E. TIERNEY: Robert Dodsley: The first printer and stationer to the Society. D.G.C. ALLAN: The contest for the secretaryship, 1769-1770. G.E. MERCER: "Mr. More of the Adelphi": Notes on the life and work of Samuel More, Secretary of the Society, 1770-1799. D.G.C. ALLAN: The chronology of James Barry's work for the Society's Great Room.

1832 **Appleby, John H.** Robert Dingley, F.R.S. (1710-1781), merchant, architect and pioneering philanthropist. *Notes Rec. Roy. Soc. Lond.*, 1991, 45: 139-154.

1833 **Arato, Franco.** Scienza e storia nel Settecento: Algarotti "contra" Vico. *G. Stor. Lett. Ital.*, 1990, 167: 205-210.

1834 **Arato, Franco.** Il secolo delle cose: Scienza e storia in Francesco Algarotti. (Ricerche studi strumenti: Letteratura, 25.) 173 pp., illus., notes, index. Genova: Marietti, 1991.

1835 **Ardila, Marta.** Science policies in the American colonies: A comparative study. *Diss. Abstr. Int.*, 1992, 52: 4454-A.

Dissertation at Boston Univ., 1992. Major Professor: Thomas F. Glick. Univ. Microfilms order no. 92-12812. 323 pp. On the differences in scientific productivity and practice in the English colonies of North America and the Spanish colonies of South America in the 18th century.

1836 **Arner, Robert D.** Dobson's Encyclopaedia: The publisher, text, and publication of America's first Britannica, 1789-1803. xviii + 295 pp., illus., notes, index. Philadelphia: Univ. of Pennsylvania Press, 1991.

1837 **Artigas-Menant, Geneviève.** La vulgarisation scientifique dans *Le nouveau magasin français* de Mme Leprince de Beaumont. *Rev. Hist. Sci.*, 1991, 44: 343-357.

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1838 **Auroux, Sylvain; Bourel, Dominique; Porset, Charles (eds.)** L'*Encyclopédie*, Diderot, l'esthétique: Mélanges en hommage à Jacques Chouillet, 1915-1990. 334 pp., notes, index. Paris: Presses Universitaires de France, 1991.

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Commenting on Mark Risjord, "The sensible foundation for mathematics: A defense of Kant's view", *Stud. Hist. Phil. Sci.*, 1990, 21: 123-143. Followed by additional comments by Nicholas Griffin (pp. 661-63) and a reply by Risjord (pp. 665-72).

1944 **Mayer, Jean.** Diderot et le calcul de probabilités dans l'*Encyclopédie*. *Rev. Hist. Sci.*, 1991, 44: 375-391.

1945 **Mortureux, Marie-Françoise.** De la ressemblance entre les mathématiques et l'amour dans les *Entretiens* de Fontenelle. *Rev. Hist. Sci.*, 1991, 44: 301-311.

1946 **Posy, Carl J. (ed.)** Kant's philosophy of mathematics. (Synthese library, 219.) x + 370 pp., notes, index. Dordrecht: Kluwer Academic, 1992.

Contents: CARL J. POSY: Introduction: Mathematics in Kant's critique of pure reason. JAAKKO HINTIKKA: Kant on the mathematical method. CHARLES PARSONS: Kant's philosophy of arithmetic. MANLEY THOMPSON: Singular terms and intuitions in Kant's epistemology. PHILIP KITCHER: Kant and the foundations of mathematics. CHARLES PARSONS: Arithmetic and the categories. J. MICHAEL YOUNG: Construction, schematism and imagination. MICHAEL FRIEDMAN: Kant's theory of geometry. STEPHEN BARKER: Kant's view of geometry: A partial defense. ARTHUR MELNICK: The geometry of a form of intuition. WILLIAM HARPER: Kant on space, empirical realism, and the foundations of geometry. CARL J. POSY: Kant's mathematical realism. GORDON G. BRITTAN, JR.: Algebra and intuition. JAAKKO HINTIKKA: Kant's transcendental method and his theory of mathematics.

1947 **Robinet, André.** La conquête de la chaire de mathématiques de Padoue par les leibniziens. *Rev. Hist. Sci.*, 1991, 44: 181-201.

"After his stay in Italy (March 1689-March 1690), Leibniz maintained powerful relationship with academics in that country. Fardella, Gugliemini, and Ramazzini were all in Padua at the same time, and these three individuals formed a bridgehead that Leibniz exploited in order to foster the spread of the infinitesimal calculus in Italy. At this time the mathematics chair at the University of Padua was vacant, and this vacancy gave rise to a multiplicity of intrigues which led to Jakob Hermann's nomination in 1707 to occupy the chair and then to Nikolaus I Bernoulli's nomination in 1716 to fill the chair." From the English summary.

1948 **Scardovi, I.** Laplace e la probabilità: Una sfida al caso. *G. Fis.*, 1991, 32: 137-150.

1949 **Truesdell, C.** Corrections and additions for "Maria Gaetana Agnesi". *Arch. Hist. Exact Sci.*, 1992, 43: 385-386.

Corrections to his paper in this journal, 1989, 40: 113-142.

1950 **Waring, Edward.** Meditationes algebraicae: An English translation of the work of Edward Waring. Edited and translated from the Latin by Dennis Weeks. lx + 459 pp., notes, index. Providence, R.I.: American Mathematical Society, 1991.

1951 **Weeks, Dennis.** The life and mathematics of George Campbell, F.R.S. *Hist. Math.*, 1991, 18: 328-343.

37.2c. Physical sciences *(astronomy, physics, chemistry)*

1952 **Abbri, Ferdinando.** Immagini, teorie e strumenti: Lavoisier e la rivoluzione chimica. Pp. 69-89 in Stefano Poggi, Massimo Mugnai (eds.) *Tradizioni filosofiche e mutamenti scientifici*. Bologna: Il Mulino, 1990.

1953 **Abbri, Ferdinando.** Science de l'air: Studi su Felice Fontana. 110 pp., notes, index. Cosenza: Brenner, 1991.

1954 **Anderson, Wilda.** Scientific nomenclature and revolutionary rhetoric. *Rhetorica*, 1989, 7: 45-53.

On the political uses of Lavoisier's chemical nomenclature by the Idéologues after the French Revolution.

1955 **Arato, Franco.** Intorno al newtonianesimo: Quattro lettere inedite di Francesco Algarotti. *G. Stor. Lett. Ital.*, 1987, 164: 556-569.

1956 **Arato, Franco.** Il "secolo delle cose": Il newtonianesimo di Francesco Algarotti. *G. Stor. Lett. Ital.*, 1990, 167: 505-545.

1957 **Arrigoni, Tiziano.** Le *Selve* di Giovanni Targioni Tozzetti: Indici. A cura di Tiziano Arrigoni. (Inventari e cataloghi toscani, 29.) viii + 465 pp. Firenze: Giunta regionale toscana; Milano: Bibliografica, 1989.

Index to Targioni Tozzetti's *Selva di notizie spettanti all'origine ed ai progressi e miglioramenti delle scienze fisiche in Toscana.*

1958 **Barsanti, Danilo.** La figura e l'opera di Tommaso Perelli (1704-83), matematico e professore di astronomia all'Università di Pisa. *Boll. Stor. Pisano*, 1988, 57: 39-83.

1959 **Bennett, J.A.** The English quadrant in Europe: Instruments and the growth of consensus in practical astronomy. *J. Hist. Astron.*, 1992, 23: 1-14.

During the 18th century.

1960 **Bensaude-Vincent, Bernadette.** The balance: Between chemistry and politics. *Eighteenth Cent. Theory Interpr.*, 1992, 33: 217-237.

Examines the role of the balance in Lavoisier's work, and the relationship that existed between his scientific and administrative activities. "I will show that presenting the balance as a symbol of the chemical revolution is justified so long as we consider it not only as an instrument of the laboratory, but also as an abstract concept that brings together diverse aspects of Lavoisier's *oeuvre*."

1961 **Beretta, Marco.** Lavoisier revisited. *Nuncius*, 1991, 6(1): 191-203.

Essay review of F.L. Holmes, *Eighteenth-century chemistry as an investigative enterprise* (Berkeley, 1989).

1962 **Berkeley, George.** *De motu* and *The analyst*: A modern edition, with introductions and commentary. Edited and translated by Douglas M. Jesseph. (The new synthese historical library: Texts and studies in the history of philosophy, 41.) xi + 230 pp., notes, index. Dordrecht: Kluwer Academic, 1992.

1963 **Blay, Michel.** La naissance de la mécanique analytique: La science du mouvement au tournant des XVIIe et XVIIIe siècles. Préface de Jacques Merleau-Ponty. (Bibliothèque d'histoire des sciences.) 414 pp., notes, bibl., index. Paris: Presses Universitaires de France, 1992.

1964 **Carl-Wilhelm-Scheele-Ehrung 1986:** Materialien der bilateralen wissenschaftshistorischen Tagung der Akademie der Wissenschaften der DDR und der Königlich-Schwedischen Akademie der Wissenschaften vom 23. bis 26. September 1986 in Stralsund. 231 pp., notes. Berlin: Akademie der Wissenschaften der DDR, Institut für Theorie, Geschichte und Organisation der Wissenschaft, 1987.

Papers not on Scheele are entered separately. Papers on Scheele include: HUBERT LAITKO: Carl Wilhelm Scheele und die Umwälzung des chemischen Denkens um die Wende vom 18. zum 19. Jahrhundert. TORE FRÄNGSMYR: Carl Wilhelm Scheele: Eine Bilanz. ANDERS LUNDGREN: Carl Wilhelm Scheele und seine Stellung in der theoretischen Entwicklung der Chemie. THORSTEN BEYRICH: Werden und Wirken der Scheele-Gesellschaft. STIG EKSTRÖM: 200 Jahre Scheele: Ehrung und Forschung in Schweden.

1965 **Donovan, Arthur.** The chemical revolution and the Enlightenment–and a proposal for the study of scientific change. Pp. 87-101 in Peter Jones (ed.) *Philosophy and science in the Scottish Enlightenment*. Edinburgh: Donald, 1988.

"In the second section I sketch out a research program for the study of Antoine Lavoisier's achievement as a chemist and of the Chemical Revolution that he led. In addition to exemplifying several aspects of the conception of science studies outlined in the first section, this second section will suggest how we might construct comparative studies of eighteenth-century chemistry."

1966 **English, John C.** John Wesley and Isaac Newton's *System of the world. Proc. Wesley Hist. Soc.*, 1991, 48: 69-86.

On Wesley's ambivalent attitude toward Newtonianism.

1967 **Euler, Leonhard.** Briefe an eine deutsche Prinzessin über verschiedene Gegenstände aus der Physik und Philosophie. Aus dem Französischen übersetzt. Eingeleitet und erläutert von Andreas Speiser. xlvi + 316 pp., index. Braunschweig: Vieweg, 1986.

1968 **Evans, David S.** Lacaille: Astronomer, traveler. With a new translation of his journal. (Pachart history of astronomy series, 9.) 320 pp., illus., bibl., index. Tucson: Pachart, 1992.

1969 **Fenby, David V.** Chemical reactivity and heat in the 18th century. Pp. 67-86 in Peter Jones (ed.) *Philosophy and science in the Scottish Enlightenment.* Edinburgh: Donald, 1988.

1970 **Franssen, Maarten.** The ocular harpsichord of Louis-Bertrand Castel: The science and aesthetics of an 18th-century *cause célèbre. Tractrix*, 1991, 3: 15-77.

"In the first part of this essay an overview is presented of Castel's theory of colour music and the ocular harpsichord. It is investigated to what extent he succeeded in building his harpsichord, concluding that various models have existed, none of which could perform up to Castel's expectations. Nor did anyone else succeed in this. In the second part of the essay contemporary comments (up till 1819) on the ocular harpsichord and on the idea of colour music are analysed." From the summary.

1971 **Friedman, Michael.** Kant and the exact sciences. xvii + 357 pp., notes, bibl., index. Cambridge, Mass.: Harvard Univ. Press, 1992.

1972 **Fyffe, J.G.; Anderson, R.G.W.** Joseph Black: A bibliography. xv + 125 pp., index. London: Science Museum, 1992.

1973 **Galletto, D.** Lagrange e le origini della *Mécanique analytique. G. Fis.*, 1991, 32: 83-126.

1974 **Golinski, Jan.** The Chemical Revolution and the politics of language. *Eighteenth Cent. Theory Interpr.*, 1992, 33: 238-251.

Focuses on reaction to Lavoisier's nomenclature by his critics, especially British. "For them, the new terminology was not an advance in communacative clarity but an illigitimate attempt to change the rules of scienctific discourse. By situating the linguistic reform in a context of controversy, we can perceive some of its connections with Lavoisier's form of scientific practice."

1975 **Golinski, Jan.** Science as public culture: Chemistry and Enlightenment in Britain, 1760-1820. xi + 342 pp., illus., notes, bibl., index. Cambridge: Cambridge Univ. Press, 1992.

1976 **Gómez, Susana.** The Bologna stone and the nature of light: The Sciences Academy of Bologna. *Nuncius*, 1991, 6(2): 3-32.

On the study of the phosphorescent qualities of the Bologna stone at the Accademia delle Scienze di Bologna during the 18th century.

1977 **Home, R.W.** Electricity and experimental physics in 18th-century Europe. (Variorum collected studies series, 366.) Aldershot, Eng.: Variorum, 1992.

Collection of previously published papers.

1978 **Hoskin, Michael; Rochester, George D.** Thomas Wright and the Royal Society. *J. Hist. Astron.*, 1992, 23: 167-172.

1979 **Howells, Robin.** The principle of mobility in Fontenelle's *Entretiens sur la pluralité des mondes. French Stud.*, 1992, 46: 129-143.

1980 **Hutchison, Keith.** Idiosyncrasy, achromatic lenses, and early Romanticism. *Centaurus*, 1991, 34: 125-171.

"In the present paper, the clash between these contrasting characterisations of Romanticism [confidence in unity of nature vs. diversity of nature] is examined through a close dissection of the issue at stake in a dispute centered on one of the most important episodes in the history of optical technology, the mid-18th realisation that it is possible to use combinations lenses to correct chromatic aberration."

1981 **Jacopo Bartolomeo Beccari** e la prima cattedra di chimica nel contesto dell'Istituto delle Scienze, Bologna, 3-4 dicembre 1987. 23 pp., notes. Bologna: Accademia delle Scienze dell'Istituto di Bologna, Classe di Scienze Fisiche, 1987.

Catalog of an exhibit.

1982 **Kanamori, Osamu.** New light on Lavoisier: The research of the last twenty years, 10: The language-bounded character of chemical knowledge. (In Japanese). *Kagakushi*, 1991, 18: 211-220.

Discusses problems raised by Wilda Anderson's *Between the library and the laboratory* (1984).

1983 **Kollnig, Karl.** Der Hofastronom Christian Mayer, 1719-1783. Pp. 463-478 in Wilhelm Doerr (ed.) *Semper apertus: Sechshundert Jahre Ruprecht-Karls-Universität Heidelberg 1386-1986.* Band 1. Berlin: Springer-Verlag, 1985.

1984 **Kryzhanovsky, Leonid N.** Richmann's experiment and the electrophorus. *Centaurus*, 1991, 34: 119-124.

"Georg Wilhelm Richmann (1711-1753), a native of the Russian Empire, of German descent, was the first to conduct electrical research in Russia, from 1745 . . . Presented below is Richmann's experiment (Richmann 1758) described by him in 1753 . . ."

1985 **Lind, Gunter.** Physik im Lehrbuch, 1700-1850: Zur Geschichte der Physik und ihrer Didaktik in Deutschland. ix + 403 pp., illus., notes, bibl., index. Berlin: Springer-Verlag, 1992.

1986 **Mason, Stephen F.** Jean Hyacinthe de Magellan, F.R.S., and the chemical revolution of the 18th century. *Notes Rec. Roy. Soc. Lond.*, 1991, 45: 155-164.

1987 **McEvoy, John G.** The Chemical Revolution in context. *Eighteenth Cent. Theory Interpr.*, 1992, 33: 198-216.

1988 **Nevskaja, Nina I.** Joseph-Nicolas Delisle (1688-1768) und seine russische astronomische Schule. Pp. 58-65 in Volker Bialas (ed.) *Naturgesetzlichkeit und Kosmologie in der Geschichte*. Stuttgart: Steiner, 1992.

1989 **Niderst, Alain.** Les *Lettres anglaises* de Voltaire, une vulgarisation méthodique et imprudente. *Rev. Hist. Sci.*, 1991, 44: 313-323.

Political aspects of Voltaire's popularization of Newtonian physics.

1990 **Palacios Remondo, Jesús.** Dos cartas inéditas de Juan Josef y Fausto Delhuyar. *Llull*, 1991, 14: 651-658.

1991 **Panza, Marco.** The analytical foundation of mechanics of discrete systems in Lagrange's *Théorie des fonctions analytiques*, compared with Lagrange's earlier treatments of this topic. *Hist. Scientiarum*, 1991, n.s. 1: 87-132, 181-212.

1992 **Pasquinelli, A.** L'opera scientifica di Lavoisier e la Rivoluzione Francese. *G. Fis.*, 1991, 32: 205-206.

1993 **Proceedings** of the International Symposium on Ruder Bošković, Dubrovnik, 5th-7th October, 1987. [Edited by Žarko Dadić]. 283 pp., notes. Zagreb: Jugoslavenska Akademija Znanostii i Umjetnosti u Zagrebu, 1991.

Papers in English: IVO ŠLAUS: Scientific achievements of R. Bošković. ARCANGELO ROSSI: Bošković's philosophy of space. IVICA MARTINOVIĆ: Bošković on his own theory of forces: From a sentence to the theory of natural philosophy. RADOMIR DORDEVIĆ: Ideas of Bošković about the nature of the cognition process. IVICA MARTINOVIĆ: Bošković's theory of the transformations of geometric loci: Program, axiomatics, sources. BORIS FRANUŠIĆ: The analysis of Bošković's astronomy for the mariner. AUGUST ZIGGELAAR: A failed but famous experiment with aberration of light. HELMUT MORITZ: Bošković and the figure of the Earth today. SNJEŽANA PAUŠEK-BAŽDAR: Bošković's views on the role of heat and light in chemical changes. VLADIMIR MULJEVIĆ: Some of Bošković's views on aerostats and his contacts with Benjamin Franklin. ŽARKO DADIĆ: The role of Karl Scherffer in the acceptance and promotion of Bošković's scientific ideas. GERMANO PAOLI: Boscovich at Bassano, 1783-1785. EDOARDO PROVERBIO: When did Boscovich stay in Milan while teaching at the University of Pavia? JUAN CASANOVAS: Boscovich's proposed voyage to California. JUSTIN V. VELNIĆ: Ancestry of R. Bošković. MARIJAN SIVRIĆ, NENAD VEKARIĆ: A geneaological presentation of the Bošković family. Papers in Serbian or Croatian (titles in English): JOSIP SLIŠKO: Bošković: Time for a new look. MILJENKO BELIĆ: Some fragments of Bošković's ontology. ZDRAVKO FAJ: On Bošković's theory in the treatise *Synopsis physicae generalis* (1754) by Carlo Benvenuti. ALEKSANDAR STIPČEVIĆ: Bošković as an archeologist. BRANIMIR GLAVIČIĆ: Poetic and metrical features of Bošković's poem *De Solis ac Lunae defectibus*. RAFO BOGIŠIĆ: The Bettera family and literary tradition in the family of Bošković. ILIJA MITIĆ: The diplomatic work of Bošković for the Republic of Dubrovnik. STIPE KUTLEŠA: The study of the life and work of Bošković among the Croats (with bibliography). MIJO KORADE: R. Bošković and the Confraternity of St. Jerome in Rome. JOSIP LUČIĆ: Funeral honors for Bošković in Dubrovnik. STJEPAN KRASIĆ: A star that went out too soon: Ignacije Bošković (1701-1727). BLAŽ ČAVEC: R. Bošković and the suppresion of the Society of Jesus. DRAGIŠA IVANOVIĆ: On some properties of the atomistic theory of Bošković. BORIVOJE A. JOVANOVIĆ: The structural elements of matter in the "theory of natural philosophy" of Bošković as complex dialectic identities. ANDRIJA B.K. STOJKOVIĆ: The dualism of Bošković's philosophic conception. ERNEST STIPANIĆ: On some questions of differential geometry connected with Bošković's idea of continuity.

1994 **Racault, Jean-Michel.** L'observation du passage de Vénus sur le soleil: Le voyage de Pingré dans l'Océan Indien. *Dix-huit. Siècle*, 1990, 22: 107-120.

1995 **Roberts, Lissa.** Condillac, Lavoisier, and the instrumentalization of science. *Eighteenth Cent. Theory Interpr.*, 1992, 33: 252-271.

Uses the Chemical Revolution as a case study of instrumentalization, that is, "the increased reliance on evermore sophisticated instruments, measurement, and empirical testing."

1996 **Scheffer, Henrik Teofilus.** Chemical lectures of H.T. Scheffer. Edited by Torbern Bergman (1775) and J.A. Schufle (translator). (Chemists and chemistry, 14.) xxix + 559 pp., illus. Dordrecht: Kluwer Academic, 1992.

1997 **Sibum, Heinz Otto.** Physik aus ihrer Geschichte verstehen: Entstehung und Entwicklung naturwissenschaftlicher Denk- und Arbeitsstile in der Elektrizitätsforschung des 18. Jahrhunderts. (Wissenschafts- und Technikgeschichte.) xi + 301 pp., illus., notes, bibl. Wiesbaden: Deutscher Universitäts-Verlag, 1990.

1998 **Stadler, Ulrich.** Hardenbergs "poetische Theorie der Fernröhre": Der Synkretismus von Philosophie und Poesie, Natur- und Geisteswissenschaften und seine Konsequenzen für eine Hermeneutik bei Novalis. Pp. 51-62 in Ernst Behler, Jochen Hörisch (eds.) *Die Aktualität der Frühromantik*. Paderborn: Schöningh, 1987.

1999 **Voltaire, François.** Essai sur la nature du feu, et sur sa propagation. Critical edition by W.A. Smeaton and Robert L. Walters. Pp. 1-89 in *The complete works of Voltaire*. Vol. 17. Oxford: The Voltaire Foundation, Taylor Institution, 1991.

2000 **Williams, William D.** Old chemistries: James Tytler's *A system of chemistry*. *Bull. Hist. Chem.*, 1991, 10: 34-39.

37.2d. Earth sciences *(geology and geophysics; geography, cartography, and geology; oceanography; travel, exploration, and navigation; paleontology; mineralogy and crystallography; meteorology)*

2001 **Allmer, Franz.** Die Meridianmessungen von Pater Joseph Liesganig, S.J. Pp. 111-121 in *Vorträge und Berichte, 4. Kartographiehistorisches Colloquium, Karlsruhe 1988*. Berlin: Reimer, 1990.

2002 **Bret, Patrice.** Les épreuves aérostatiques de l'École polytechnique en l'an IV de la géométrie descriptive à l'origine de l'École des géographes. *Sci. Tech. Persp.*, 1990/91, 19: 119-142.

2003 **Carozzi, Albert V.** H.B. de Saussure, pionnier de la géologie moderne. *Recherche*, 1992, 23: 414-422.

2004 **Carozzi, Albert V.; Zenger, Donald H.** The original chemical analysis of dolomite by Nicolas-Théodore de Saussure (1792): A laboratory error and its historical consequences. *Arch. Sci. (Geneva)*, 1991, 44: 163-196.

Presents an annotated translation of de Saussure's article (1792) in which he named *dolomie*.

2005 **Claudon-Adhémar, Catherine; Claudon, Francis.** Le *Voyage en Sibérie* de Chappe d'Auteroche. *Dix-huit. Siècle*, 1990, 22: 61-71.

2006 **Damiens, Jacques; Destruel, Isabelle.** La météorologie des philosophes et des savants: Biobibliographie du temps révolutionnaire. 29 pp., illus., index. Trappes: Ministère de l'Équipement, du Logement, des Transports de la Mer, Direction de la Métérologie Nationale, 1990.

2007 **Dean, Dennis R.** James Hutton and the history of geology. xiii + 303 pp., illus., notes, bibl., index. Ithaca, N.Y.: Cornell Univ. Press, 1992.

2008 **Franke, Hans.** Die Würzburger Lügensteine: Tatsachen, Meinungen und Lügengespinste über eine der berühmtesten geologischen Spottfälschungen des 18. Jahrhunderts. 82 pp., illus., bibl. Würzburg: Schöningh, 1991.

2009 **Fuller, J.G.C.M.** The invention and first use of stratigraphic cross-sections by John Strachey, F.R.S., (1671-1743). *Arch. Natur. Hist.*, 1992, 19: 69-90.

2010 **Fuller, J.G.C.M.** William Smith's explanation of the colliers' dial, 1798. *Arch. Natur. Hist.*, 1992, 19: 107-111.

On a collier's method for measuring directions of dip in coalfields. Smith's interest was for records of local stratigraphy.

2011 **González-Ripoll Navarro, M. Dolores.** Una aproximación a la expedición "secreta" de Ventura Barcaíztegui (1790-1793), y los reconscimientos de la parte oriental de Cuba. *Asclepio*, 1991, 43(2): 165-179.

2012 **González-Ripoll Navarro, M. Dolores.** La expedición del Atlas de la América Septentrional (1792-1810): Orígenes y recursos. *Rev. Indias*, 1990, 50: 767-788.

On the hydrographic mapping expeditions in the Caribbean.

2013 **Die Grosse Nordische Expedition** von 1733 bis 1743: Aus Berichten der Forschungsreisenden Johann Georg Gmelin und Georg Wilhelm Steller. [Ausgewählt und hrsg. von Doris Posselt. Nachwort "Das Russische Reich am Vorabend der Grossen Nordischen Expedition, der sogenannten zweiten Kamtschatka-Epedition" von Folkwart Wendland.] (Bibliothek des 18. Jahrhunderts.) 408 pp., illus., notes. München: Beck, 1990.

2014 **Guntau, Martin.** Der Einfluss schwedischer Gelehrter auf das geologisch-mineralogische Denken in Deutschland während der zweiten Hälfte des 18. Jahrhunderts. Pp. 165-183 in *Carl-Wilhelm-Scheele Ehrung 1986*. Berlin: Akademie der Wissenschaften der DDR, 1987.

2015 **Lopes, Maria Margaret.** José Bonifacio de Andrada e Silva–o mineralogista–na produção historiográfica-Brasileira. *Quipu*, 1990, 7: 335-344.

Andrada e Silva's contributions to mineralogy at the end of the 18th century.

2016 **Lucena Giraldo, Manuel.** El estudio de la travesía de Cartagena de Indias por la Expedición Hidrográfica del Atlas de la América Septentrional. *Asclepio*, 1991, 43(2): 199-215.

On the hydrographic mapping expeditions in the Spanish Caribbean in the late 18th and early 19th centuries.

2017 **Moser, Walter.** Buffon: Exégète entre théologie et géologie. *Strum. Crit.*, 1987, n.s. 2: 17-42.

2018 **Ouasti, Boussif.** La *Description de l'Égypte*. *Dix-huit. Siècle*, 1990, 22: 73-82.

Describes the contents of the encyclopedic work resulting from Napoleon's Egyptian campaign, first published 1809.

2019 **Pelletier, Monique.** La carte de Cassini: L'extraordinaire aventure de la carte de France. Préface de Jean-François Carrez. 263 pp., illus., bibl. Paris: Presses de l'École Nationale des Ponts et Chaussées, 1990.

2020 **Rappaport, Rhoda.** Fontenelle interprets the earth's history. *Rev. Hist. Sci.*, 1991, 44: 281-300.

2021 **Roth, Erwin.** Tobias Mayer (1723-1762), Kartograph der Wendezeit. Pp. 211-219 in *Vorträge und Berichte, 4. Kartographiehistorisches Colloquium, Karlsruhe 1988*. Berlin: Reimer, 1990.

2022 **Terrall, Mary.** Representing the earth's shape: The polemics surrounding Maupertuis's expedition to Lapland. *Isis*, 1992, 83: 218-237.

2023 **Vaccari, Ezio.** Storia della terra e tempi geologici in uno scritto inedito di Giovanni Arduino: La *Riposta allegorico-romanzesca* a Ferber. *Nuncius*, 1991, 6(2): 171-212.

Publishes this text presenting Arduino's theory of the earth and geological time.

2024 **Wendland, Folkwart.** Peter Simon Pallas (1741-1811): Materialien einer Biographie. (Veröffentlichungen der Historischen Kommission zu Berlin, 80.) 2 vols; xviii + 1176 pp., illus., notes, bibl., index. Berlin: de Gruyter, 1992.

37.2e. Biological sciences *(zoology, botany, anatomy, physiology, physical anthropology; also applied biology, including certain aspects of agriculture, such as plant and animal breeding, economic entomology, etc.)*

2025 **Bartram, John.** The correspondence of John Bartram, 1734-1777. Edited by Edmund Berkeley and Dorothy Smith Berkeley. xv + 808 pp., illus., notes, bibl., index. Gainesville: Univ. Press of Florida, 1992.

2026 **Bartram, William.** Le voyage de William Bartram (1773-1776): Découverte du paysage et invention de l'exotisme américain. Traduction et présentation: Yvon Chatelin. 295 pp., illus., notes. Paris: Karthala & Orstrom, 1991.

2027 **Beale, Georgia R.** Early French members of the Linnean Society of London, 1788-1802: From the Estates General to Thermidor. *Proc. West. Soc. French Hist.*, 1991, 18: 272-282.

2028 **Beale, Georgia.** Early French members of the Linnean Society of London, 1788-1802: Initial encounters. *Stud. Voltaire 18th Cent.*, 1991, 292: 129-138.

2029 **Benson, Keith R.** Observation versus philosophical commitment in 18th-century ideas of regeneration and generation. Pp. 91-100 in Charles E. Dinsmore (ed.) *A history of regeneration research.* Cambridge: Cambridge Univ. Press, 1991.

2030 **Beretta, Marco.** The *Société Linnéenne de Paris* (1787-1827). *Svenska Linnésällsk. Årssk.*, 1990-91: 151-175.

2031 **Bernardi, Walter.** La ragione e la catena del vivente nelle scienze della vita del Settecento. Pp. 53-68 in Stefano Poggi, Massimo Mugnai (eds.) *Tradizioni filosofiche e mutamenti scientifici.* Bologna: Il Mulino, 1990.

2032 **La botánica** en la expedición Malaspina, 1789-1794. Pabellón Villanueva, Real Jardín Botánico, octubre-noviembre 1989. 218 pp., illus., notes, bibl. Madrid: Turner, 1989.

Contents: MARIA DOLORES HIGUERAS: El marino ilustrado y las expediciones científicas. JOSÉ LUIS PESET: Las riquezas de los nuevos mares. ANDRÉS GALERA GÓMEZ: La botánica en el proyecto científico de Antonio Pineda. MARIA VICTORIA IBÁÑEZ: Nuevas aportaciones a la investigación Haenkeana. FÉLIX MUÑOZ GARMENDIA: Algo más sobre Neé y sus aportaciones a la botánica. CARMEN SOTOS SERRANO: La botánica y el dibujo en el siglo XVIII. OLDRICH KASPAR: Tadeo Haenke y sus fondos ducumentales en Bohemia. MARIA DE LOS ÁNGELES CALATAYUD ARINERO: Documentación científica y colecciones de la expedición Malaspina en el Museo Nacional de Ciencias Naturales. MARIA VICTORIA IBÁÑEZ: Primer inventario del fondo documental "Tadeo Haenke" en el Real Jardín Botánico de Madrid.

2033 **Cain, A.J.** The *Methodus* of Linnaeus. *Arch. Natur. Hist.*, 1992, 19: 231-250.

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2136 **Habrich, Christa.** Characteristic features of 18th-century therapeutics in Germany. *Clio Med.*, 1991, 22: 39-49.

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2174 **Fauque, Danielle.** Le chemin de la lumière ou l'instrument scientifique à travers les planches de l'*Encyclopédie*. *Corps Écrit*, 1990, 35: 33-38.

2175 **Galán, A.; Moreno, R.** Platinum in the 18th century: A further Spanish contribution to an understanding of its discovery and early metallurgy. *Platinum Metals Rev.*, 1992, 36: 40-47.

2176 **Harris, John.** Essays in industry and technology in the 18th century: England and France. (Collected studies series, CS 354.) 223 pp., notes, index. London: Variorum, 1992.

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2177 **Hilaire-Pérez, Liliane.** Invention and the State in 18th-century France. *Technol. Cult.*, 1991, 32: 911-931.

2178 **James, J.G.** Thomas Paine's iron bridge work, 1785-1803. *Trans. Newcomen Soc.*, 1987/88 (pub. 1990), 59: 189-221.

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2184 **Moncada Maya, J. Omar.** La obra hidráulica de los ingenieros militares en la Nueva España. *Quipu*, 1990, 7: 293-311.
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2185 **Pelayo, Francisco.** Las actividades mineras de J.C. Mutis y Juan José Elhuyar en Nueva Granada. *Rev. Indias*, 1990, 50: 455-471.

2186 **Pickering, O.S.** The re-emergence of the engineering reports of John Grundy of Spalding (1719-83). *Trans. Newcomen Soc.*, 1988/89 (pub. 1991), 60: 137-143.
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2190 **Smart, I.H.** The Dartmouth residences of Thomas Newcomen and his family. *Trans. Newcomen Soc.*, 1988/89 (pub. 1991), 60: 145-160.

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38. NINETEENTH CENTURY

38a. General history; Philosophy

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2197 **Barbieri, F.** Il pensiero di Paolo Ruffini su alcuni problemi epistemologici. *G. Fis.*, 1991, 32: 167-174.

2198 **Batári, Gyula.** A *Tudománytár* természettudományos és müszaki vonatkozásairól. (On the scientific and technical content of the journal Tudománytár). *Tech. Szemle*, 1990-91, 18:
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2200 **Berkel, K. van.** Natuurwetenschap en cultureel nationalisme in negentiende-eeuws Nederland. *Tijdschr. Gesch.*, 1991, 104: 574-589.

2201 **Berzolari, A. Gigli.** Ricerca scientifica e tecnologica in Europa ed in Italia tra '700 e '800. *G. Fis.*, 1991, 32: 221-232.

2202 **Böhme, Günther.** Goethe: Naturwissenschaft, Humanismus, Bildung: Ein Versuch über die Gegenwart klassischer Bildung. 214 pp., notes. Frankfurt am Main: Lang, 1991.

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Contents: RUDOLF HALLER: Franz Brentano, ein Philosoph des Empirismus. KLAUS HEDWIG: Deskription: Die historischen Voraussetzungen und die Rezeption Brentanos. PETER M. SIMONS: Brentano's theory of categories: A critical appraisal. SUSAN F. KRANTZ: Brentano's argument against Aristotle for the immateriality of the soul. BARRY SMITH: The soul and its parts: A study in Aristotle and Brentano. ALFRED SCHÖPF: Das Problem des Unbewussten in Brentanos *Psychologie vom empirischen Standpunkt.* KARL SCHUHMANN: Brentano und die Münchener Phänomenologie. ULLRICH MELLE: Zu Brentanos und Husserls Ethikansatz: Die Analogie zwischen den Vernunftarten. MARIO MARTINI: "Sittliche Erkenntnis" bei Brentano und ihre Weiterwirkung in Italien. KEVIN MULLIGAN: Seeing as and assimilative perception. MARCO BUZZONI: Brentano: Sprache, Ontologie und Person. LYNN PASQUERELLA: Brentano and the direct attribution theory.

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2210 **Coleman, D.** John Hall Gladstone and elementary science education at the London School Board. 1991.

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2311 **Archibald, Thomas.** Riemann and the theory of electrical phenomena: Nobili's rings. *Centaurus*, 1991, 34: 247-271.

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2726 **De Marneffe, Daphne.** Looking and listening: The construction of clinical knowledge in Charcot and Freud. *Signs*, 1991, 17: 71-111.

"In this essay, I attempt to show how the methods Charcot and Freud used to study hysteria interacted with the emotions and utterances of the women studied to produce very different accounts of the nature of the disorder and the process of cure."

2727 **Del Amo, Silvia; Malvido M., Elsa.** Las tesis hechas por médicos mexicanos en el siglo XIX acerca de plantas medicinales. *Quipu*, 1990, 7: 345-381.

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2728 **Desrosières, Alain.** Official statistics and medicine in 19th-century France: The SGF as a case study. *Soc. Hist. Med.*, 1991, 4: 515-537.

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2729 **Di Marco, Giacomo.** Cesare Vigna e la musicoterapia. Pp. 183-193 in *Le scienze mediche nel Veneto dell'Ottocento*. Venezia: Istituto Veneto di Scienze, Lettere ed Arti, 1990.

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2731 **Dreifuss, Jean Jacques.** Les premières étudiantes à la Faculté de médecine et leurs activités professionnelles à Genève. *Gesnerus*, 1991, 48: 429-438.

"Amongst the first students enrolled at the Faculty of Medicine of Geneva in the last decades of the 19th century were many women, mostly originating from Eastern Europe. After graduation, only a few remained in Geneva. The life of three early graduates illustrates the difficulties encountered by women doctors at the turn of the century in Geneva and some of the ways to overcome the resistance encountered."

2732 **Duffin, Jacalyn M.** Puerile respiration: Laennec's stethoscope and the physiology of breathing. *Trans. Stud. Coll. Physicians Phila.*, 1991, 13: 125-145.

2733 **Eckert, Jack.** Every prospect of a healthy summer: The 1839 outbreak of yellow fever in Charleston, South Carolina. *Trans. Stud. Coll. Physicians Phila.*, 1992, 14: 167-175.

2734 **Eckert, Jack.** An indescribable feeling of wretchedness: Letters to Samuel Jackson on epilepsy. *Trans. Stud. Coll. Physicians Phila.*, 1992, 14: 83-100.

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2737 **Elkeles, Barbara.** Moralische Erwägungen bei der Wiedereinführung der Bluttransfusion im 19. Jahrhundert. *Gesnerus*, 1991, 48: 29-42.

2738 **Ellerkamp, Marlene.** Industriearbeit, Krankheit und Geschlecht: Zu den sozialen Kosten der Industrialisierung: Bremer Textilarbeiterinnen 1870-1914. (Kritische Studien zur Geschichtswissenschaft, 95.) 343 pp., notes, bibl., index. Göttingen: Vandenhoeck & Ruprecht, 1991.

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2740 **English, Mary P.** Victorian values: The life and times of Dr. Edwin Lankester, M.D., F.R.S. 187 pp., illus., notes, index. Bristol: Biopress, 1991.

2741 **Erickson, William D.** "Something must be done for them": Establishing Minnesota's first hospital for the insane. *Minn. Hist.*, 1992, 53: 42-55.

2742 **Ernst, Waltraud.** Mad tales from the Raj: The European insane in British India, 1800-1858. (The Wellcome Institute series in the history of medicine.) xi + 195 pp., illus., notes, index. London: Routledge, 1991.

2743 **Finley, Randy.** In war's wake: Health care and Arkansas freedmen, 1863-1868. *Arkansas Hist. Quart.*, 1992, 51: 135-163.

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2745 **Fox, John W.** Irish immigrants, pauperism, and insanity in 1854 Massachusetts. *Soc. Sci. Hist.*, 1991, 15: 315-336.

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2747 **Friedrich, Christoph.** Briefe im 19. Jahrhundert als wissenschaftshistorische Quelle, dargestellt am Beispiel des Briefwechsels des Apothekers A.P.J. Du Menil (1777-1852). *Ber. Wissenschaftsgesch.*, 1991, 14: 181-195.

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2749 **Furlong, B.A.** Alexander Alexander, 1849-1928: Building the foundations of health and strength in Liverpool and Southport. *Hist. Educ.*, 1992, 21: 179-187.

2750 **García González, Armando C.; Rangel Rivero, Armando.** El Museo Anatómico de La Habana: La enseñanza de la anatomía, cirugía y obstetricia, 1823-1842. *Asclepio*, 1991, 43(2): 23-57.

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2751 **The General Register Office** of England and Wales and the public health movement, 1837-1914: A comparative perspective. *Soc. Hist. Med.*, 1991, 4: 401-497.

Special issue. Contents: SIMON SZRETER: Introduction: The GRO and the historians. LAWRENCE GOLDMAN: Statistics and the science of society in early Victorian Britain: An intellectual context for the General Register. SIMON SZRETER: The GRO and the public health movement in Britain, 1837-1914. EDWARD HIGGS: Disease, febrile poisons, and statistics: The census as a medical survey, 1841-1911. FRED LEWES: The GRO and the provinces in the 19th century.

2752 **Gerabek, Werner.** Der Leipziger Physiologe Carl Ludwig und die medizinische Instrumentation. *Sudhoffs Arch.*, 1991, 75: 171-179.

2753 **Gollaher, David L.** Dorothea Lynde Dix and the frontiers of madness in America. *Diss. Abstr. Int.*, 1992, 53: 599-A.

Dissertation at Harvard Univ., 1992. Adviser: William R. Hutchison. Univ. Microfilms order no. 92-20130. 489 pp.

2754 **González López, Rosa M.** Felipe Poey y los estudios sobre la ciguatera. *Asclepio*, 1991, 43(2): 129-138.

Focuses on his work in ichthyology, and especially his study of ciguatera, an illness caused by eating toxic fish.

2755 **Graham, Peter W.; Oehlschlager, Fritz H.** Articulating the Elephant Man: Joseph Merrick and his interpreters. vii + 212 pp., notes, bibl., index. Baltimore: Johns Hopkins Univ. Press, 1992.

2756 **Granshaw, Lindsay.** "Upon this principle I have based a practice": The development and reception of antisepsis in Britain, 1867-90. Pp. 17-46 in John V. Pickstone (ed.) *Medical innovations in historical perspective*. New York: St. Martin's Press, 1992.

2757 **Guarnieri, Patrizia.** Alienists on trial: Conflict and convergence between psychiatry and law (1876-1913). *Hist. Sci.*, 1991, 29: 393-410.

On psychiatric evidence as to the mental condition of defendants, especially in Italy.

2758 **Hachten, Elizabeth A.** Science in the service of society: Bacteriology, medicine, and hygiene in Russia, 1855-1907. *Diss. Abstr. Int.*, 1992, 52: 4066-A.

Dissertation at Univ. of Wisconsin-Madison, 1991. Supervisor: Judith W. Leavitt. Univ. Microfilms order no. 91-35463. 370 pp. Deals especially with I.I. Mechnikov and his colleagues at the Odessa Bacteriological Station.

2759 **Haller, John S., Jr.** Intolerable, excruciating, and troublesome: Military ambulance technology, 1793-1880. *Caduceus*, 1991, 7(2): 2-30.

2760 **Hamlin, Christopher.** Predisposing causes and public health in early 19th-century medical thought. *Soc. Hist. Med.*, 1992, 5: 43-70.

"This article points out the inadequacies of the contagionism-anticontagionism characterization of early 19th-century aetiological theory, examines the concept of predispositionism as it appeared in the works of many writers, and considers in detail investigations of the Irish fever outbreak of 1817-19, where the concept of predisposition was extensively utilized, and the arguments with which the concept was rejected by Chadwick's associates Thomas Southwood Smith and Neil Arnott." From the summary.

2761 **Harrigan, Stephen L.** The case history of Cheknov, Freud and Conan Doyle. *Diss. Abstr. Int.*, 1992, 53: 490-A.

Dissertation at Yale Univ., 1991. Adviser: Shoshana Felman. Univ. Microfilms order no. 92-18786. 185 pp. "This dissertation is an examination of the boundary between medical and fictional representations of illness in the writings of three physicians of the 1890s."

2762 **Harrison, M.** Public health and medical research in India, c. 1860-1914. 1991.

PhD thesis, Oxford Univ. (UK). Directors: M. Pelling, P.J. Weindling.

2763 **Hawkins, Kenneth B.** The therapeutic landscape: Nature, architecture, and mind in 19th century America. *Diss. Abstr. Int.*, 1992, 52: 4062-A.

Dissertation at Univ. of Rochester, 1991. Supervisor: Christopher Lasch. Univ. Microfilms order no. 92-10223. 396 pp. "Part one treats the role of landscaped grounds in the therapy practiced at the reform generation of mental asylums in the northeastern United States. It continues with an assessment of corporate and public asylum grounds in American landscape history . . . To elucidate connections between the asylum and park, part two examines the social thought and design philosophies of two founding landscape architects, A.J. Downing and Frederick Law Olmsted. Both extended the language of faculty psychology from its base in moral philosophy to discussions of horticulture, landscape gardening, domestic architecture, and the public park. Both designed asylum grounds."

2764 **Higby, Gregory J.** In service to American pharmacy: The professional life of William Procter, Jr. (History of American science and technology series.) xvi + 269 pp., illus., notes, bibl., index. Tuscaloosa: Univ. of Alabama Press, 1992.

2765 **Hill, Teresa L.** Religion, madness, and the asylum: A study of medicine and culture in New England, 1820-1840. *Diss. Abstr. Int.*, 1992, 52: 3404-A.

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2767 **Holman, Andrew C.** Thomas J. Jackson and the idea of health: A new approach to the social history of medicine. *Civil War Hist.*, 1992, 38: 131-155.

On the medical history of "Stonewall' Jackson.

2768 **Horrocks, Thomas A.; Eckert, Jack.** "Dearest Maria": Letters from a medical student in Philadelphia to his fiancee, 1845-1846. *Trans. Stud. Coll. Physicians Phila.*, 1990, 12: 367-385.

2769 **Huddle, Thomas S.** Looking backward: The 1871 reforms at Harvard Medical School reconsidered. *Bull. Hist. Med.*, 1991, 65: 340-365.

2770 **Huertas, Rafael.** Sobre los orígenes de la psiquiatría cubana: La obra de Gustavo López (1860-1912). *Asclepio*, 1991, 43(2): 69-87.

2771 **Humphreys, Margaret.** Yellow fever and the South. (Health and medicine in American society.) x + 226 pp., notes, index. New Brunswick, N.J.: Rutgers Univ. Press, 1992.

In the last half of the 19th century.

2772 **Jaeger, Wolfgang.** Theodor Leber und die Begründung der Experimentellen Ophthalmologie. Pp. 321-331 in Wilhelm Doerr (ed.) *Semper apertus: Sechshundert Jahre Ruprecht-Karls-Universität Heidelberg 1386-1986.* Band 2. Berlin: Springer-Verlag, 1985.

2773 **Kahana, Anne P.** Illness, health, and the Romantic subject: An intergeneric study. *Diss. Abstr. Int.*, 1991, 52: 1739-A.

Dissertation at State Univ. of New York at Stony Brook, 1991. Univ. Microfilms order no. 91-28553. 124 pp. "This dissertation examines the relationship between literary and medical writing in the late 18th and early 19th centuries . . . To illustrate that relationship I concentrate on William and Dorothy Wordsworth's writing, examining the literary material in conjunction with examples of contemporaneous medical discourse . . ."

2774 **Kirkby, Kenneth Clifford.** Proving the somaticist position: J.B. Friedreich on the nature and seat of mental disease. *Hist. Psychiat.*, 1992, 3: 237-251.

2775 **Klimpel, Volker.** Der Chirurg Hans Kehr (1862-1916). *Medizinhist. J.*, 1991, 26: 363-365.

2776 **Knecht-van Eekelen, A. de.** Intreeredes en het beeld van het medisch onderwijs in de heel- en verloskunde in Nederland (1865-1900). (Medical education in the Netherlands as seen from the inaugural addresses in surgery and obstetrics.). *Tijdschr. Gesch. Geneesk. Natuurwetensch. Wisk. Tech.*, 1991, 14: 119-149.

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2781 **Lanczik, Mario.** Karl Ludwig Kahlbaum (1828-1899) and the emergence of psychopathological and nosological research in German psychiatry. *Hist. Psychiat.*, 1992, 3: 53-58.

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2783 **Luchins, Abraham S.** The cult of curability and the doctrine of perfectibility: Social context of the 19th-century American asylum movement. *Hist. Psychiat.*, 1992, 3: 203-220.

2784 **Maccagni, Carlo.** Francesco Aglietti e il suo tempo. Pp. 155-169 in *Le scienze mediche nel Veneto dell'Ottocento.* Venezia: Istituto Veneto di Scienze, Lettere ed Arti, 1990.

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2786 **Marx, Otto M.** German Romantic psychiatry. *Hist. Psychiat.*, 1990, 1: 351-381; 1991, 2: 1-25.

2787 **Mayer, Roger.** Un précurseur méconnu: Marc-Jacob D'Espine (1806-1860) et la statistique médicale. *Gesnerus*, 1991, 48: 375-393.

2788 **Mazzoni, Cristina M.** Hysterical pregnancies and virgin birth: Neurosis and mysticism in French and Italian literature at the turn of the century. *Diss. Abstr. Int.*, 1992, 52: 2543-A.

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2794 **Morus, Iwan Rhys.** Marketing the machine: The construction of electrotherapeutics as viable medicine in early Victorian England. *Med. Hist.*, 1992, 36: 34-52.

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2796 **Mumford, Kevin J.** "Lost manhood" found: Male sexual impotence and Victorian culture in the United States. *J. Hist. Sexual.*, 1992, 3: 33-57.

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2800 **Pagel, Marianne.** Gesundheit und Hygiene: Zur Sozialgeschichte Lüneburgs im 19. Jahrhundert. (Veröffentlichungen der Historischen Kommission für Niedersachsen und Bremen, 34. Quellen und Untersuchungen zur Wirtschafts- und Sozialgeschichte Niedersachsens in der Neuzeit, 15.) 554 pp., notes, bibl. Hannover: Hahnsche Buchhandlung, 1992.

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"The main theme of this work is that pain and suffering and the subsequent development of surgical anesthesia in the romantic period are an outgrowth of romantic subjectivity.".

2802 **Parr, Michael J.A.** Creativity in science: Principles and perspectives. *Diss. Abstr. Int.*, 1992, 52: 4066-A.

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2803 **Peard, Julyan G.** The Tropicalista School of Medicine of Bahia, Brazil, 1860-1889. *Diss. Abstr. Int.*, 1991, 52: 1485-A.

Dissertation at Columbia Univ., 1990. Univ. Microfilms order no. 91-27951. 436 pp. "This dissertation is a reexamination of a group of doctors in Brazil in the 2nd half of the 19th century called the *Escola Tropicalista Bahiana.*"

2804 **Persaud, Rajendra D.** A comparison of symptoms recorded from the same patients by an asylum doctor and "a Constant Observer" in 1823: The implications for theories about psychiatric illness in history. *Hist. Psychiat.*, 1992, 3: 79-94.

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2807 **Pitcock, Cynthia de Haven.** William Beaumont, M.D. and malpractice: The Mary Dugan Case, 1844. *J. Hist. Med.*, 1992, 47: 153-162.

2808 **Poirier, Jacques.** La Faculté de médecine face à la montée du spécialisme. Pp. 209-227 in B.-P. Lécuyer, B. Matalon (eds.) *Les débuts de sciences de l'homme*. Paris: Seuil, 1992.

2809 **Preston, Samuel H.; Haines, Michael R.** Fatal years: Child mortality in late 19th-century America. (NBER series on long-term factors in economic development.) xxi + 266 pp., illus., notes, index. Princeton, N.J.: Princeton Univ. Press, 1991.

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2816 **Rothfield, Lawrence.** Vital signs: Medical realism in 19th-century fiction. (Literature in history.) xvii + 235 pp., notes, index. Princeton, N.J.: Princeton Univ. Press, 1992.

2817 **Sadoff, Dianne F.** "Experiments made by nature": Mapping the 19th-century hysterical body. *Victorian Newslett.*, 1992, 81: 41-44.

2818 **Scarpelli, Giacomo.** "Nothing in nature that is not useful": The anti-vaccination crusade and the idea of *harmonia naturae* in Alfred Russel Wallace. *Nuncius*, 1992, 7(1): 109-130.

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2821 **Schmorrte, Stefan.** Alter und Medizin: Die Anfänge der Geriatrie in Deutschland. *Arch. Sozialgesch.*, 1990, 30: 15-41.

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2825 **Schultz, Jane E.** The inhospitable hospital: Gender and professionalism in Civil War medicine. *Signs*, 1992, 17: 363-392.

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2835 **Soppelsa, Maria Laura.** Paolo Marzolo e le "parole-medaglie" della medicina. Pp. 129-154 in *Le scienze mediche nel Veneto dell'Ottocento*. Venezia: Istituto Veneto di Scienze, Lettere ed Arti, 1990.

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2845 **Underhill, Paul.** Alternative views of science in intra-professional conflict: General practitioners and the medical and surgical elite 1815-58. *J. Historic. Sociol.*, 1992, 5: 322-350.

2846 **Unschuld, Paul U.** On the reception of acupuncture in early 19th century Europe as reflected in the writings of Francesco Da Camino. Pp. 217-230 in *Le scienze mediche nel Veneto dell'Ottocento*. Venezia: Istituto Veneto di Scienze, Lettere ed Arti, 1990.

2847 **Valentine, Phyllis Klein.** A 19th-century experiment in education of the handicapped: The American Asylum for the Deaf and Dumb. *New Engl. Quart.*, 1991, 64: 355-375.

2848 **Vandermeersch, Patrick.** The victory of psychiatry over demonology: The origin of the 19th-century myth. *Hist. Psychiat.*, 1991, 2: 351-363.

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2852 **Weindling, Paul.** From medical research to clinical practice: Serum therapy for diphtheria in the 1890s. Pp. 72-83 in John V. Pickstone (ed.) *Medical innovations in historical perspective.* New York: St. Martin's Press, 1992.

2853 **Wenzel, Manfred.** Goethe und die Medizin: Selbstzeugnisse und Dokumente. Mit zahlreichen Abbildungen von Manfred Wenzel. 127 pp., illus., notes, index. Frankfurt am Main: Insel Verlag, 1992.

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2869 **Belt, Henk van den.** Why monopoly failed: The rise and fall of Société La Fuchsine. *Brit. J. Hist. Sci.*, 1992, 25: 45-63.

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2870 **Bradley, Joseph.** Guns for the Tsar: American technology and the small arms industry in 19th-century Russia. xi + 274 pp., illus., notes, index. DeKalb, Ill.: Northern Illinois Univ. Press, 1990.

2871 **Brooks, John.** The circular dividing engine: Development in England 1739-1843. *Ann. Sci.*, 1992, 49: 101-135.

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2875 **Cardwell, D.S.L.** On Michael Faraday, Henry Wilde, and the dynamo. *Ann. Sci.*, 1992, 49: 479-487.

2876 **Carlson, W. Bernard.** Innovation as a social process: Elihu Thompson and the rise of General Electric, 1870-1900. (Studies in economic history and policy: The United States in the 20th century.) xxii + 377 pp., illus., notes, index. Cambridge: Cambridge Univ. Press, 1991.

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2881 **Cooper, Carolyn C.** Social construction of invention through patent management: Thomas Blanchard's woodworking machinery. *Technol. Cult.*, 1991, 32: 960-998.

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2886 **Dodgen, Randall A.** Hydraulic evolution and dynastic decline: The Yellow River Conservancy, 1796-1855. *Late Imper. China*, 1991, 12(2): 36-63.

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2901 **Heinimann, Alfred Ch.** Technische Innovation und literarische Aneignung: Die Eisenbahn in der deutschen und englischen Literatur des 19. Jahrhunderts. (Basler Studien zur deutschen Sprache und Literatur, 63.) 534 pp., notes, bibl., index. Bern: Francke, 1992.

2902 **Heinzerling, Werner; Trischler, Helmuth (eds.)** Otto Lilienthal: Flugpionier, Ingenieur, Unternehmer–der vollständige zeichnerische und fotografische Nachlass. 320 pp., illus., bibl., index. München: Bertelsmann Leikon Verlag, 1991.

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2903 **Histoire générale de l'électricité** en France. Tome premier: Espoirs et conquêtes, 1881-1918. Sous la direction de François Caron et de Fabienne Pardot. Préface de Marcel Boiteux. 999 pp., illus., notes, index. Paris: Fayard, 1991.

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2906 **Hornix, Willem J.** From process to plant: Innovation in the early artificial dye industry. *Brit. J. Hist. Sci.*, 1992, 25: 65-90.

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2907 **Hulin, Nicole.** Les instruments dans l'enseignement scientifique au XIXe siècle. *Corps Écrit*, 1990, 35: 39-43.

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38i. Pseudo-sciences *(includes natural magic, witchcraft, divination, alchemy, astrology, and parapsychology)*

2968 **Giacomoni, Paola.** Wilhelm von Humboldt e la fisiognomica: La scrittura della natura e la calcolabilità dell'universo. *Stor. Psicol. Sci. Comport.*, 1990, 2(1): 46-63.

2969 **McCandless, Peter.** Mesmerism and phrenology in antebellum Charleston: "Enough of the marvellous". *J. South. Hist.*, 1992, 58: 199-230.

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2971 **Romascko, Sergej A.** Sprachwissenschaft, Ästhetik und Naturforschung der Goethe-Zeit: Theorie und Empirie im Ursprung der vergleichenden Grammatik. *Hist. Linguist.*, 1991, 18: 301-320.

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2973 **Bekenntnisse zum Frieden:** Naturwissenschaftler und Mediziner des 20. Jahrhunderts im Kampf um Frieden und Abrüstung. Hrsg. von Irene Strube, Ingrid Kästner und Sonja Brentjes. 396 pp., ports., notes, index. Berlin: Akademie Verlag, 1989.

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2975 **Biagioli, Mario.** Science, modernity, and the "final solution". Pp. 185-205, 371-377 in Saul Friedlander (ed.) *Probing the limits of representation: Nazism and the "final solution"*. Cambridge, Mass.: Harvard Univ. Press, 1992.

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2976 **Bonneuil, Christophe.** "Des savants pour l'Empire": Les origines de l'ORSTOM. *Cah. Hist. CNRS*, 1990, 10: 83-102.

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2979 **Breed, David R.** Ralph Wendell Burhoe: His life and his thought. V: The struggle to establish the vision as a new paradigm. *Zygon*, 1991, 26: 397-428.

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2987 **Galison, Peter; Hevly, Bruce (eds.)** Big science: The growth of large-scale research. xi + 392 pp., illus., notes, bibl., index. Stanford, Calif.: Stanford Univ. Press, 1992.

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2988 **Galleni, Lodovico.** Relationships between scientific analysis and the world view of Pierre Teilhard de Chardin. *Zygon*, 1992, 27: 153-166.

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2990 **Geymonat, Ludovico.** La Vienna dei paradossi: Controversie filosofiche e scientifiche nel Wiener Kreis. A cura di Mario Quaranta. (Percorsi della scienza, 1.) 206 pp., notes, index. Padova: Il Poligrafo, 1991.

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2992 **Grattan-Guinness, Ivor.** At the feet of Whitehead. *Notes Rec. Roy. Soc. Lond.*, 1991, 45: 271-276.

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3386 **Smith-Vaniz, William F.; Peck, Robert McCracken.** Contributions of Henry Weed Fowler (1878-1965), with a brief early history of ichthyology at the Academy of Natural Sciences of Philadelphia. *Proc. Acad. Natur. Sci. Phil.*, 1991, 143: 173-191.

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3399 **Vicedo, Marga.** La importancia de la distinción genotipo-fenotipo en los inicios de la genetica: Un análisis del concepto de carácter-unidad con especial atención al trabajo de W.E. Castle. *Llull*, 1991, 14: 241-258.

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". . . the knowledge-generating culture of scientists working in the field of biotechnology in different institutional contexts will be examined through an investigation of scientists and commercial managers in three distinct though related research and development contexts: The Plant Breeding Institute in Cambridge, the government-initiated Agricultural Genetics Company on the Cambridge Science Park and the Biotechnology Centre at the University of Cambridge."

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3409 **Zallen, Doris T.** The Rockefeller Foundation and spectroscopy research: The programs at Chicago and Utrecht. *J. Hist. Biol.*, 1992, 25: 67-89.

"In the mid-1930s the Natural Sciences Division of the Rockefeller Foundation, under the direction of Warren Weaver, began a major initiative to improve research in the biological sciences by bringing the tools of the physical sciences into biological investigations . . . An analysis of the program in spectroscopy [the Rockefeller's attempt to foster the use of spectroscopy in biological research], emphasizing its effects at two different locations–the University of Chicago and the University of Utrecht–reveals that the Foundation, by setting up projects and providing funding, was able to serve as the catalyst for some interactions between physical scientists and biologists that would not have otherwise occurred."

39f. Social sciences *(psychology, cultural anthropology, sociology, economics)*

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3411 **Alfred Marshall's** *Principles of economics*, 1890-1990. Edited by M. Dardi, M. Gallegati, E. Pesciarelli. *Quad. Stor. Econ. Polit.*, 1991 (2-3): 3-624.

Contents: J.K. WHITAKER: Marshall's *Principles* after one hundred years. T. RAFFAELLI: The analysis of the human mind in the early Marshallian manuscripts. P.D. GROENEWEGEN: Alfred Marshall and the history of economic thought. M. DARDI: The concept and role of the individual in Marshallian economics. B.J. LOASBY: Efficient institutions. E. PESCIARELLI: The undertaker's role in Marshall's approach to economic growth. G. BECATTINI: Market and communism in the thought of Alfred Marshall. R.C.O. MATTHEWS, B. SUPPLE: The ordeal of economic freedom: Marshall on economic history. D.A. REISMAN: Conservative capitalism: Alfred Marshall. R. McWILLIAMS TULLBERG: Alfred Marshall and the male priesthood of economics. R.W. BUTLER: The historical context of the early Marshallian work. A. KADISH: University reform and the *Principles*. D. ROSS: An unusual commitment: Alfred and Mary Marshall and the establishment of the Marshall Library 1903-1944. E.F. BIAGINI: Marshall's 1873 "Lectures to women". G.C. HARCOURT: Marshall's principles as seen at Cambridge through the eyes of Gerald Shove, Dennis Robertson and Joan Robinson. A. RONCAGLIA: Staffa's 1925 article and Marshall theory. A. ZANNI: Pareto's monologue with Marshall. G. CARAVALE: On the role of demand in Ricardo and Marshall. A. GAY: Time schemes in analysing Marshallian thought. D. DELLI GATTI, M. GALLEGATI: Credit, confidence and speculation: A Marshallian perspective on business fluctuations. A. MARICIC: Time, agents, and dynamics in Alfred Marshall's *Principles of economics*. E. SCHLICHT: Marshall, Keynes, and macroeconomics. J.A. KREGEL: Walras' auctioneer and Marshall's well-informed dealers: Time, market prices and normal supply prices. R. MARCHIONATTI: Marshall on increasing returns and competition. C. CECCHI: Land tenure and economic progress in the *Principles*. D. CAVALIERI: Alfred Marshall and the theory of capital.

3412 **Amiot, Michel.** Le système de pensée de Maurice Halbwachs. *Rev. Syn.*, 1991, 112: 265-288.

3413 **Angelini, Alberto.** Psicologia della percezione e del montaggio cinematografico in Rudolf Arnheim e Sergej M. Ejzenštejn: Due ipotesi a confronto. *Stor. Psicol. Sci. Comport.*, 1989, 1(1): 49-60.

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3416 **Babcock, Barbara A.** "Not in the absolute singular": Re-reading Ruth Benedict. *Frontiers*, 1992, 12(3): 39-77.

3417 **Back, Kurt W.; Neary, Brigitte U.** Gruppendynamik und Sozialpsychologie. *Psychol. Gesch.*, 1992, 3(3-4): 102-113.

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